

MARCH 7, 1955

NH Sees Cheaper Piggyback . . . p. 45

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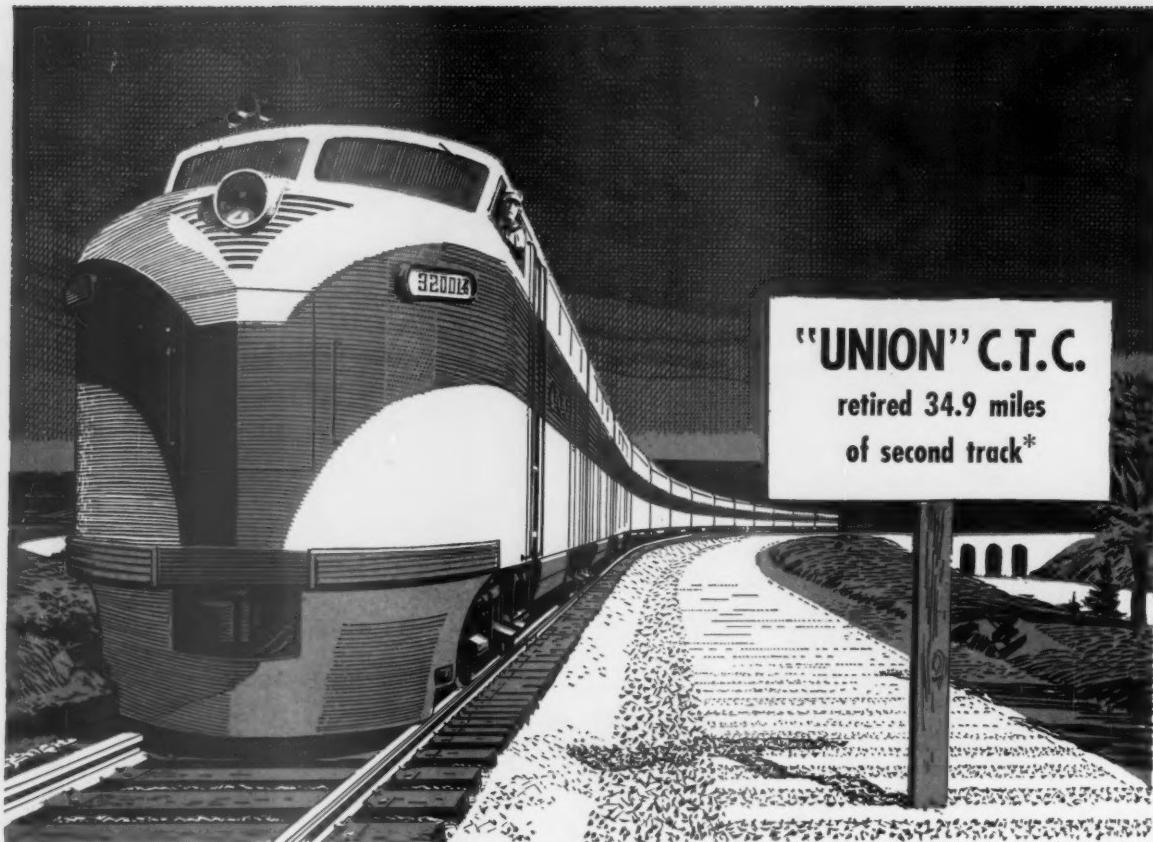


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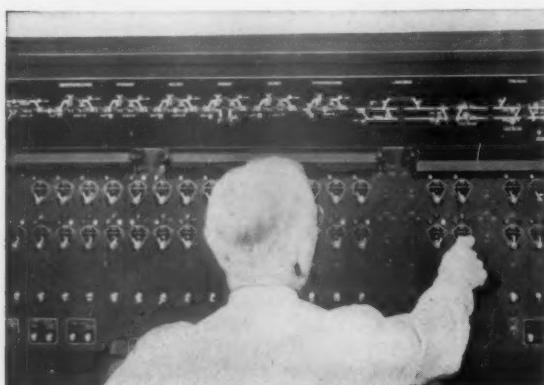
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March 7, 1955

Vol. 138, No. 10

Week at a Glance

Piggyback got a big boost last week, when the Pennsylvania, in cooperation with the Rail-Trailer Company, inaugurated "TrucTrain" service between New York, Philadelphia and Chicago. **7**

The idea of trainload rates on coal got favorable mention from a Presidential advisory committee—which, however, rejected the railroads' contention that rail rates are not responsible for the economic plight of the bituminous coal industry. **9**

"Make freight rates more effective," not only to meet competition but to attract and retain traffic, is E. G. Plowman's prescription for the railroads. **10**

FORUM—What does big highway program mean for railroads? Just this: The railroads' commercial competitors will get even more luxurious facilities—for nuthin', just when it began to look like toll road programs could accomplish something in the direction of stabilizaton. **37**

Yard radio pays its way on the C&O at Huntington, W. Va., where installations have been made on 17 locomotives and in four yard offices. Savings: \$28,000 yearly. **38**

Ties, driven by an off-track rig devised in the Frisco's shop, provide stabilization of soft roadbed. **41**

Lackawanna cabooses have been electrified. All steel, welded units, designed and built by the railroad, have been equipped with radio, electric lights. **42**

Rail business could float away — literally — if the proposed "Cal-Sag" channel project is carried through at Chicago. **44**

New Haven sees cut in piggyback costs using the Piggy-Back, Inc., system of handling trailers. Seventy-



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High lift, low lift, or little to no lift as in spotting operations . . . the JACKSON TRACK MAINTAINER handles them all with top-notch efficiency in every type and condition of ballast.

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Current Statistics

Operating revenues, twelve months	
1954	\$9,370,905,784
1953	10,664,264,383
Operating expenses, twelve months	
1954	\$7,384,226,784
1953	8,135,346,686
Taxes, twelve months	
1954	\$ 861,147,306
1953	1,185,017,865
Net railway operating income, twelve months	
1954	\$ 874,505,486
1953	1,109,350,754
Net income, estimated, twelve months	
1954	\$ 666,000,000
1953	868,000,000
Average price railroad stocks	
March 1, 1955	91.22
March 2, 1954	61.71
Carloadings, revenue freight	
Seven weeks, 1955	4,464,404
Seven weeks, 1954	4,356,220
Average daily freight car surplus	
Wk. ended February 26, 1955	43,244
Wk. ended February 27, 1954	120,622
Average daily freight car shortage	
Wk. ended February 26, 1955	914
Wk. ended February 27, 1954	318
Freight cars on order	
February 1, 1955	18,395
February 1, 1954	27,959
Freight cars delivered	
One month, 1955	2,008
One month, 1954	4,944
Average number railroad employees	
Mid-January 1955	1,009,746
Mid-January 1954	1,107,995

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Week at a Glance

CONTINUED

five-foot, "no-floor" cars and accessories may cut handling costs 50%. 45

BRIEFS

The Turgeon Commission, named by the Canadian government to examine the tangled agreed charges problem, has submitted its report to the Cabinet at Ottawa, but publication of its contents probably will be delayed until the government makes up its mind what to do about it. Some organizations have demanded abolition of the rate contracts, while the railways have urged that existing regulations governing agreed charges should be eased so they would be freer to lower rates to meet truck competition.

A detailed search for minerals—both metallic and non-metallic—on its five million acres of land and reserved rights in California, Nevada and Utah, will be undertaken by the Southern Pacific, beginning in mid-March. The project will take an estimated eight years. By using all modern prospecting methods, the SP hopes to obtain a complete mineral ownership inventory.

The "electronic age of railroading" has arrived, according to J. J. O'Neill, comptroller of the New Haven, who has announced that the road has ordered an electronic data processing machine with a "magnetic memory" that can telescope into a single operation procedures which once required multiple card handling and processing. As an example, it was pointed out that the new machine can receive, "remember" and process 7,500 freight waybills and 8,000 to 10,000 car movements daily.

A monorail line connecting Cologne, Germany, and nearby Opladen is under serious consideration, according to a West German government spokesman. The line, if built, would be a refinement of the "Alweg" system (*Railway Age*, October 27, 1952, page 14), in which very high-speed electric-powered cars straddle a reinforced concrete structure supporting a single beam-type rail.

Solid bearing cars earn equivalent of \$250,000 EXTRA REVENUE PER YEAR on each 1000 car investment

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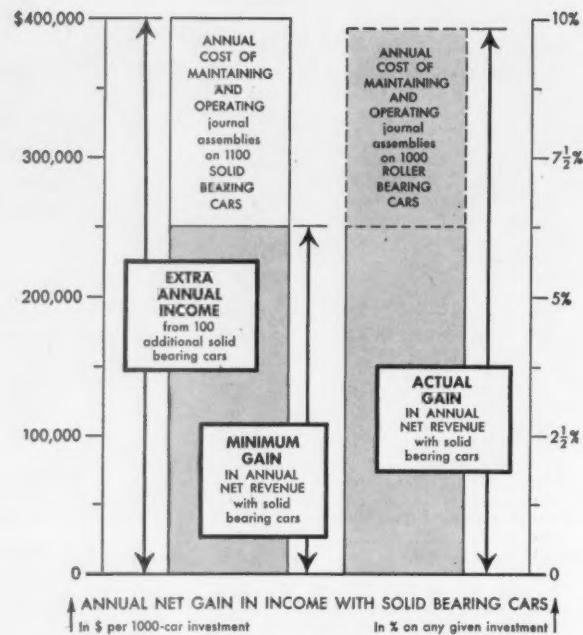
For the same amount of money needed to buy 1000 average roller bearing freight cars, you can buy 1100 or more solid bearing freight cars. And if you want to know what the *loss* on the roller bearing investment would be, here's a rule-of-thumb to figure it.

First, assuming the extra cars are needed, you estimate their average earnings. Then, from this sum, about \$400,000.00, you subtract the difference, if any, in maintaining and operating journal bearing assemblies on 1100 solid bearing cars as opposed to 1000 roller bearing cars.

Conservatively, you'll find your minimum annual gain with solid bearings to be about \$250,000.00, and it may be as much as \$400,000.00.

By the same token, suppose you only need 1000 cars to meet your traffic requirements. With solid bearings, you reduce your initial costs by at least \$600,000.00 and you get the same proportionate increase in return per dollar of car investment represented by the \$250,000.00 to \$400,000.00 above. And since both freight revenues and bearing operating costs are proportionate to car use, this comparative increase in return with solid bearings holds true regardless of traffic conditions.

Write us for a detailed analysis of the economic advantages of solid-type bearings for



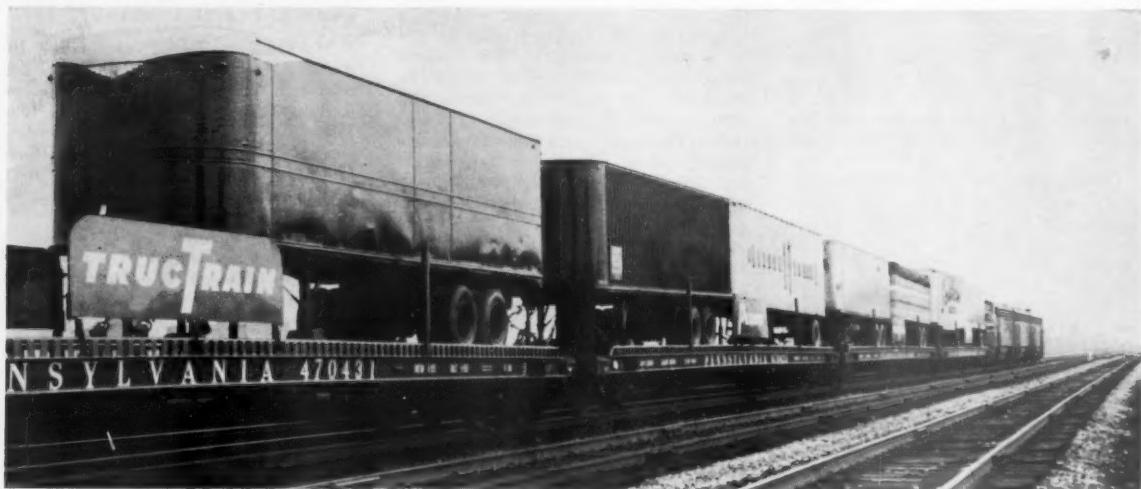
The left hand column indicates the average extra annual revenue that can be earned by buying 1100 solid bearing cars instead of 1000 roller bearing cars, and the center box indicates the minimum revenue gain that would result if the roller bearings could eliminate all maintenance and operating expense. The actual annual net gain, of course, would be this minimum gain plus roller bearing maintenance and operating costs as indicated in the right hand column.

freight cars. We will also be glad to give you information about ways to improve journal bearing performance. Magnus Metal Corporation, 111 Broadway, New York 6; or 80 E. Jackson Blvd., Chicago 4.

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PRR Begins New Piggyback Service

Trailers of motor common carriers now moving between Chicago and New York in "TrucTrain" service

Long-distance rail movement for solid trains of motor common carrier trailers began March 3, when the Pennsylvania initiated its new piggy-back service between New York and Chicago (*Railway Age*, January 10, page 13).

Two freight trains, each loaded with approximately 100 trailers, made the initial move between the terminal cities. The road plans to operate solid piggy-

back trains in each direction every weekday, providing early second-morning delivery.

This "entirely new" "TrucTrain" operation is distinct from the piggy-back service which the Pennsylvania began last summer. In the latter, the road transports its own trailers.

The first westbound train in the new common-carrier service left Kearny, N.J., near New York City, at 11 p.m.,

March 3. At the same hour the initial eastbound train left Chicago. Scheduled running time for the New York-Chicago service is 29 hours.

Service between Philadelphia and Chicago, in both directions, also has been established. Through trains will pick up and set out flat cars at Frankford Junction, for local switching to and from the nearby rail terminal.

James M. Symes, PRR president, said this new TrucTrain service for motor common carriers represents "the maximum development to date of the piggy-back effort." He called it "a logical and sound combination of rail and truck transportation," and said truck operators gave "enthusiastic response" as plans for the new service were developed.

Big Flats Used—The Pennsylvania has acquired 200 specially built flat cars for the common carrier operation. These are 75-ft cars, designed for end loading and equipped with roller bearings, high-speed trucks and cushioned draft gear. They allow speeds of 60 mph.

Terminal facilities, costing about \$400,000 have been installed at Kearny and Chicago.

Ryan Is Middleman—The Rail-Trailer Company, of Chicago, headed by Eugene F. Ryan, is cooperating with the PRR in the new service. According to the road, Mr. Ryan "is working with the railroad in its relations with the trucking lines, and is providing important terminal services for the truck operators, such as loading and unloading of the flat cars."

Contractual arrangements with common carrier truck operators are worked out by Rail-Trailer. The agreement with the Pennsylvania then provides that trailers be transported at specified rates.

It is understood that initial New



TERMINAL OPERATIONS, including loading and unloading of trailers, are handled by the Rail-Trailer Company in the Pennsylvania's new piggyback service.

York-Chicago rates approximate \$155 for trailer loads not exceeding 32,500 lb; \$190 on loads 32,500 and 42,500 lb, and 60 cents per hundred for each 100 lb above 42,500.

There have, as yet, been no final-rate arrangements made for the handling of empty trailers, since it is expected that loaded movements in the new service will be in very close balance.

Closing time for west bound trailers at Kearny, N.J., is 10 p.m., with arrival at Chicago in time for delivery before the start of business on the second morning. For eastbound trailers, closing time at Chicago is 10 p.m., with early second-morning delivery at Philadelphia and New York. Deadline at Philadelphia for Chicago-bound trailers is 11:30 p.m.

Rail-and-Auto Expressways Urged by Transit Group

Charles H. Tuttle, chairman of the Metropolitan Transit Commission (New York), speaking before the New York Railroad Club February 24, advocated that "every projected grade-separated highway [in the New York metropolitan area] should provide center mall rights of way for transit now."

Further commenting on the plan, which was developed by the commission, Mr. Tuttle went on to say: "There will be no waste if rapid transit does not prove feasible, as the central mall can then be used to increase automobile capacity of the highways." He reported that Chicago and Detroit, as well as other cities, have already adopted the idea and that, to accomplish this goal in the New York area, the commission plans to confer with both New York and New Jersey authorities.

Mr. Tuttle had spoken before the Real Estate Board of New York the previous day, emphasizing his conviction that, in metropolitan areas like New York, mass transportation by rail is an absolute necessity. "The present trend from rail to rubber must be stopped," he said. "The continuing expansion of the highway system and the system of bridges and tunnels leading toward Manhattan from all directions, constructed at enormous cost, will in all probability tend to generate additional traffic to further choke the streets of Manhattan. . . . Our commission, therefore, urgently poses the question whether common sense and stern necessity now require that the long-pursued policy of billions for vehicular traffic and not a cent for mass transportation by rail should immediately be reconsidered and thoroughly, scientifically and dispassionately studied."

An appropriation of \$300,000 (\$150,000 each from New York and New Jersey) has been requested by the commission to complete its studies in the NY-NJ metropolitan area. The funds, requested in the commission's interim report to the governors and legislatures of the two states would supplement \$500,000 recently appropriated by the Port of New York Authority for the purpose of financing studies to be made for the commission by nationally known experts.

In summing up the need for mass transportation facilities in the metropolitan area, the report states: "This transportation system must be so conceived that the various means of mass transportation . . . be so coordinated that their services will be complementary rather than competitive and that each medium will make the maximum contribution to the public convenience and necessity. It must be so

MONON-RAILWAY AGE CONTEST ENDS MARCH 31

The contest being conducted by *Railway Age* for the best essays on the subject, "Traditional Differentials in Railway Rates—Should They and Can They Be Maintained under Rivalry from Contract and Private Transportation?", will close March 31. So obey that impulse to set down your thoughts and send them in!

The essay deemed best by the judges will receive an award of \$500 from President Warren W. Brown of the Monon, and this paper is offering a prize of \$250 for the next-best essay. Detailed terms and conditions of the contest were set forth in the January 17 *Railway Age*, page 15.

How railroads can meet their competition where they find it, and not elsewhere—while still keeping present shippers-by-rail happy—is one of the most practical, and also most controversial, problems that confront the railroads. Every railroad man interested in the future of the industry ought to have some constructive suggestions to offer as to the correct solution.

Maybe, if you'll send in your ideas on the subject, you'll not only win a worthwhile prize, but also help to get the industry out of a tight fix. Entries should be submitted to the editor of *Railway Age*, 30 Church street, New York 7.

Let's hear from you before March 31.

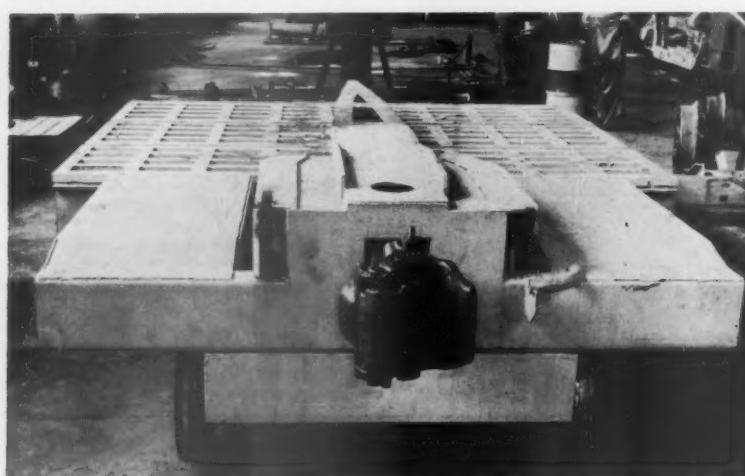
conceived that maximum use will be made of the facilities existing or to be provided to result in the most efficient operation and maximum revenues. This might contemplate the handling of mail, express and merchandise as well as passengers on rail facilities to be provided and consolidation of present rail terminals and other facilities.

"About such a new and overall approach there is nothing startling except the common sense of it and the fact that it has never been undertaken."

Santa Fe Safety Film Shown in Washington

The Santa Fe's new employee-safety film—"Challenge for Tomorrow"—got a Washington, D.C., showing February 24 before an audience which included members of the Interstate Commerce Commission, members of the commission's staff, representatives of other government agencies and other guests.

Showing of the film, in which only Santa Fe employees appear, was preceded by talks by the road's president, F. G. Gurley, and its superintendent of safety, E. L. Dugan. Presiding was R. M. Clark, Washington representative of the president.



CENTERING DEVICE, one of the accessories to the Piggy-Back, Inc., system of handling trailers on flat cars, automatically puts trailer "on the rails" (center sill members) of spe-

cial flat car, eliminating the usual jockeying necessary to get the trailer into position. This system is now being used on the New Haven (see feature article, page 45).

Erie to Extend Piggyback To Cleveland, Youngstown

The Erie has announced that, within a month, its piggyback service will be expanded to serve the Youngstown-Sharon-Warren, Ohio, area, as well as Cleveland. Harry W. VonWiller, traffic vice-president, in announcing the expansion in service, stated: "Since we began piggyback operation last July, shippers have indicated a growing interest in this new service. This has en-

couraged us to open up new areas and make it available to other shippers along our line."

The distribution center for the new service will be at Leavittsburg, Ohio, where a loading ramp is now under construction. Trailers will be moved over the road to and from Leavittsburg and thence on fast freights scheduled to give first day service to and from Chicago and New York. Rate schedules for the new service were filed with the ICC February 28.

for stabilization of the oil imports, but did not mention the freight-rate recommendation specifically. He did have this to say:

"Generally the report is satisfactory. However, it is in the form of recommendations only. It is hoped that immediate and specific steps will be taken to implement the suggestions and that various affected government agencies will act at once to see that the proposals which would benefit the 'suffering coal industry' will be put into effect without further delay."

The **Pickett comment** was followed the next day by another Coal-Association statement which reported the bituminous industry's decision to oppose railroad undertakings to cancel some reductions in rates on coal. The "wisdom" of this decision was "supported" by the cabinet committee's coal-rate recommendation, the statement said, quoting that recommendation.

The railroad proposal to which the statement was addressed involves rates on some lake coal movements, and it comes up for hearing before the railroad rate committees at Chicago on March 10. The statement included the following:

"The rate reductions put into effect last year . . . have been a substantial factor in maintaining coal on a competitive basis with oil and natural gas in a great market area. The bituminous coal industry hoped that the railroads

Rates & Fares

Coal Rate Cut Recommended

Presidential advisory committee suggests trainload rates, to reflect "lower cost" of service on that basis

President Eisenhower's Advisory Committee on Energy Supplies and Resources Policy has recommended that freight rates be adjusted "to the extent necessary to remove the excessive and disproportionate contribution that coal rates are making to meet the cost of other unprofitable services to the railroad industry."

Trainload Rates Favored—The report added that trainload rates should be established for coal movements and that they should reflect the "lower cost" of service on the trainload basis. The committee would like to have the rates adjusted by voluntary action of the railroads, but it recommended "compulsory" orders by the Interstate Commerce Commission if voluntary action were not forthcoming.

The recommendation was one of the committee's suggestion for maintaining "coal's vitality as an instrument of national defense by improving currently its ability to compete with other fuels." Among the report's other recommendations was one suggesting that imports of crude and residual oils be held to the respective proportions that such imports bore to production of domestic crude in 1954.

As to natural gas, it was recommended that its sale by interstate pipe lines be prohibited if the effect would be to drive out competing fuels because the prices are "below actual cost plus a fair proportion of fixed charges." As to natural gas storage, it was recommended that the power of eminent domain for acquisition of surface and mineral rights for development of underground storage reservoirs should be granted—"subject to appropriate safeguards to protect the public safety, including the mining industry."

The committee was established by the president last July, under the chairmanship of Director Flemming of the Office of Defense Mobilization. Other members were the heads of the

Departments of State, Treasury, Defense, Justice, Interior, Commerce, and Labor.

The report drew from Tom Pickett, executive vice-president of the National Coal Association, a statement which said the recommendations comprise a "step in the right direction." Mr. Pickett went on to comment on the call

RAIL RATES NOT RESPONSIBLE FOR COAL'S PLIGHT, SAYS HILL

Reasons for the coal industry's 20-year low in production have nothing to do with freight rates, according to Edgar V. Hill, chairman of the Traffic Executive Association, Eastern Railroads. A general reduction in railroad freight rates on coal, he said, "would only cripple the carriers and not help the coal industry."

Mr. Hill released for general circulation an exhibit first prepared for the President's Advisory Committee on Energy Supplies and Resources. The exhibit, now in pamphlet form, points out that the causes of coal's decline are five:

Dieselization of railroads, which has reduced demand for steam coal by 112 million tons a year in a decade.

Imports of residual fuel oil. This byproduct of obsolescent foreign refining methods displaced more than 35 million tons of coal along the Atlantic Coast in 1954, depriving both mines and Eastern railroads of important revenues.

Movements of the general economy. Steel production, one big coal outlet, fluctuates according to conditions which could not be affected by the price of coal in general. Utility demand, while it rises steadily, is also affected by technological improvements. Coal use per kilowatt-hour has declined 15% since 1948.

Competition from other fuels. Gas and refined oils, the pamphlet points out, have advantages which gain them a market even when they cost much more per unit of heat than does coal. A slight reduction in the cost of a therm of heat would not regain lost ground. Hydroelectric competition is furnished by government with little regard for cost.

Exports have been slashed. This country's foreign policy has included not only revival of European mining, but creation of mining industries in places where it is doubtful that domestic mining will ever equal lay-down costs of American coal.

Agitation for generally lower freight rates on coal, which has arisen in several quarters over the past year, ignores the actual history of such rates, said Mr. Hill. "The railroad's share of the coal consumer's dollar has crept back up only to where it was in 1946," he added, "and in 1946 coal miners had no trouble disposing of 545 million tons of coal."

"We sympathize deeply with the coal people. Not only are they our best customers in a tonnage way, but we too know what it is to be unfairly competed with by our own government out of own taxes. But we don't want to give them our shirt when the shirt won't even fit them!"



THE B&O'S 128TH BIRTHDAY was the occasion for holding the Steve Allen "Tonight" show in the road's Transportation Museum at Baltimore on February 28. Here, Andy Williams, star male vocalist of the show, sings from the upper deck of an "Imay" coach, one of many historic pieces of B&O rolling stock on display. Over 2,000 persons visited the museum on the road's birthday.

had started a trend to lower rates on the largest single commodity they carry . . .

"We feel the reductions presently in effect were an act of enlightened industrial leadership on the part of the railroad industry . . . We consider the

proposed cancellation a backward step that is extremely shortsighted for the railroads, and which will certainly set back and retard the encouraging progress made by the coal industry to help itself and the railroads at the same time."

"Make Freight Rates More Effective

. . . not only in meeting competition but also in attracting and retaining a profitable volume of traffic," Plowman says in Salzberg lecture

The basic problem now confronting United States railroads is to achieve success in their current efforts to make their freight rates more effective in the sense not only of meeting competition but also of again attracting and retaining a profitable volume of traffic."

So Dr. E. G. Plowman, vice-president —traffic, of the United States Steel Corporation, said in a Salzberg memorial lecture which he delivered at Syracuse University last month on the occasion of his being awarded a Salzberg medal for "distinguished service in the field of industrial traffic management."

No Monopoly—"The philosophical concept of railroad common carriers as monopolies," Dr. Plowman said, "has been shattered by the fact of competition . . . [which] is dividing the field of transportation . . . into a declining percentage handled by common carriers; and an increasing percentage performed by contract carriers and as private transportation."

Because of this replacement of monopoly by competition, "present ground rules of U. S. laws and regulations may be heading towards revision, as has happened already in Great Britain." Another result of the same general situation, according to Dr. Plowman, is that "private truck transportation cost is becoming a competition-type upper limit of the common-carrier freight rate zone of reasonableness that

may gradually supplant the upper limit established by laws and regulatory decisions."

These and other factors, he continued, have produced "signs pointing to a change in the relation of government to transportation"; "this changing attitude is expressed in a great variety of conflicting opinions."

Three Views—One "extreme view" he described "as a kind of nostalgia for the good old days."

Another, which he declared "may also become an extreme proposal that would swing the pendulum too far away from regulation" is the sentiment for "deregulation" to the extent of relying completely "upon competition as a regulatory force."

A third view, he said, "appears to be that restrictive aspects of present laws and precedents should be modified or eliminated to the extent of permitting regulation to be more constructive . . . This is sometimes described as permitting maximum use of managerial discretion by carriers, consistent with continued effective regulation. This is the middle-of-the-road approach. It proposes evolution by building on what we already have accomplished. It makes sense."

Toward Efficient Rates — Railroads and other common carriers, Dr. Plowman concluded, "can make their freight rates serve even more efficiently than ever in meeting their competition

and can thus attract to themselves a profitable volume of traffic, by the following measures:

"(1) Railroads must regain their former position as the lowest cost furnishers of domestic mass transportation . . . by adopting for all major lines those improvements and procedures already in use as pioneer installations, and by scrapping overage equipment that drives traffic away. . . .

"(2) Just as they cannot continue to maintain loss-creating service for the general public . . . common carriers cannot be expected to recover from peacetime freight rate revenues the cost of maintaining their equipment or facilities in readiness for defense needs, this . . . should be financed by government from general taxation for defense, and not borne by carriers or by shippers.

"(3) Common carriers must learn how to make profitable freight rates under competitive conditions. Such freight rate making must deal with contract carriers very much as if they were another separate mode of transportation.

"(4) The hazard . . . that open negotiation, open publication, and general availability [of rates] may be lost sight of or sacrificed, should be opposed."

Montreal Commuter Fares to Go Up

Commutation fares applying in the Montreal area will be increased 50 per cent as a result of action by the Board of Transport Commissioners. The railroads had applied for authority to effect a 100 per cent increase in such fares, comparable to that approved last year for the Toronto area (*Railway Age*, September 6, 1954, page 55), and the board has reserved decision with respect to the remainder of the proposed increase.

Labor & Wages

Strike-Threat Habit Concerns Mediation Board

The "continued high rate of incidence of strike dates set on the rail carriers by various organizations, principally those representing operating employees," still gives the National Mediation Board "much concern."

The board's annual report to Congress made this statement in discussing "problems in mediation." The board, the report added, "commends this situation to the careful attention and scrutiny of the heads of the various organizations with a view to minimizing the rather indiscriminate use of the strike-threat method to bring about quick and sometimes forced settlements."

Grievance Cases—Meanwhile, the board reported that it was becoming more generally understood in the railroad industry that grievance cases within the jurisdiction of the National Railroad Adjustment Board "must be settled on the property, and that neither

the law nor the policy" of the NRB contemplate creation of emergency boards in such instances. NRB nevertheless finds it necessary to mediate a few grievance cases to a final conclusion—"due to the recalcitrant attitude of one or both parties."

LOCOMOTIVES

The **Burlington** has ordered from the Electro-Motive Division of General Motors Corporation, for delivery in the second half of this year, 30 1,750-hp road-yard units; 10 2,400-hp passenger units; and 10 1,200-hp switchers. Estimated total cost of the equipment is \$10,365,000.

The **Canadian National** has ordered from the Montreal Locomotive Works, for delivery in April, six "A" and six "B" 1,600-hp diesel-electric passenger locomotive units.

The **Denver & Rio Grande Western** has ordered from the Electro-Motive Division of General Motors Corporation 18 diesel-electric locomotive units, as follows: Two 1,750-hp "A" units, type F-9; four 1,750-hp "B" units, type F-9; and 12 1,750-hp road-switchers, type GP-9. Total estimated cost of the 18 units, which are scheduled for delivery in July and August, is approximately \$3,200,000.

SPECIAL

The **Pacific** (Ferrocarril del Pacífico), reportedly plans to purchase about 400 complete turnouts for 100-lb rail, according to Foreign Commerce Weekly. Additional information is obtainable from the railroad at Guadalajara, state of Jalisco, Mexico.

Equipment & Supplies



New GE Diesel Being Tested

A new four-unit, 6,000-hp diesel-electric road locomotive has been produced by the General Electric Company and placed in operation on the Erie for the announced purpose of evaluating components used in locomotives for export service.

Running normal freight schedules, its operation over an extended period will simulate as many export-type applications as possible. To achieve this end, two of the four units are powered by eight-cylinder, V-type Cooper-Bessemer turbo-supercharged engines. These four-cycle units develop 1,200 hp each for traction at 1,000 rpm. The other two units are powered by 12-cylinder engines of the same make that develop 1,800-hp each. The four units

have a total weight of 490 tons and an overall length of 212 ft.

All units are equipped with GE-752 standard heavy-duty diesel-electric locomotive traction motors to permit testing under heavy American railroad operating conditions. Provision is made for full dynamic braking. Static excitation and the latest GE design control components are employed.

The units were built by General Electric to provide a means of accurately observing the performance of various standard components and of testing new standard devices in actual operation, with the aim of further improving apparatus and locomotive design and performance.

FREIGHT CARS

The **Burlington** has ordered 1,000 freight cars from its own shops, at an estimated cost of \$6,500,000. Included are 350 50½-ft 50-ton box cars; 350 52½-ft, and 50 65½-ft, 70-ton gondola cars; and 10 75-ft 125-ton, 190 53½-ft 50-ton, and 50 60-ft 70-ton, flat cars. Delivery is expected during the second half of 1955.

The **Illinois Central** is building in its own shops 35 50-ton box cars, at an estimated unit cost of \$5,500.

The **Gulf, Mobile & Ohio** has ordered an additional 100 50-ton pulpwood cars from its Meridian, Miss., shops. A previous order for 100 such cars was reported in *Railway Age*, November 1, 1954, page 65.

Briefly . . .

. . . A big "clean-up" has just been completed on the Long Island, as one of the first moves in the reorganized railroad's \$60.3-million rehabilitation program. The job involved thorough scrubbing and interior repainting of more than 1,000 passenger cars; used, among other items, 42,350 gallons of water, 6,776 pounds of soap, 915 sponges. In addition, Thomas M. Goodfellow, LI vice-president and general manager, has presented new hats to the wives of agents who suggested ways and means of keeping their husbands' stations neater and cleaner.

People in the News

Curley Heads BDSA Unit

Walter J. Curley, vice-president of General American Transportation Corporation, has become director of the Shipbuilding, Railroad, Ordnance and Aircraft Division in the Business and Defense Services Administration of the U.S. Department of Commerce. While in this government position, Mr. Curley will be on leave of absence from General American.

He is the BDSA division's first director, the announcement noting that his appointment is in line with a policy whereby experienced executives from industry volunteer their services without cost to the government for periods of six months or longer. Deputy Director Francis H. Winget had been in charge of the division since BDSA was organized on October 1, 1953.

ICC Secretary Laird Feted on Retirement

George W. Laird, who retired February 28 as secretary of the Interstate Commerce Commission, was honored that day at a ceremony in one of the commission's large hearing rooms. (*Continued on page 14*)



**WITH
THE BRAKE SHOE**

Lockey

Each year, more railroads order more new freight cars equipped with the Brake Shoe Lockey.

Of exclusive Brake Shoe design, the Lockey greatly reduces motion between brake shoe and brake head, minimizing brake head wear and renewals... and insuring against loss of shoes on car dumpers.

Designed to hold the brake shoe and brake head firmly together, the self-locking Lockey is made of high alloy steel and is covered with a rust preventive for repeated use after extensive service.

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WINNERS IN THE 1954 New York Railroad Club Essay Contest, who received their awards at the club's dinner meeting on February 24 (*Railway Age*, February 28, page 11) are, from left to right: Stuart W. Rider, Jr., assistant solicitor, Chicago, Mil-

waukee, St. Paul & Pacific, Minneapolis, \$250 third prize; Wayne J. Kangas, commercial agent, Erie, New York, \$750 first prize; and Carl V. Lyon, car service agent, Car Service Division, AAR, Washington, \$500 second prize.

People in the News

(Continued from page 11)

He and members of his family, several present and former commissioners, fellow employees, and guests, heard tributes paid him by Commissioner J. Haden Alldredge; James F. Pinkney, president of the Association of Interstate Commerce Commission Practitioners; John W. Heather, of the Southern Railway, representing regular users of the commission's public reference room; and Shirley D. Mayers, of Traffic World, representing the press.

The retiring secretary also received a commendation from the commission in the form of a letter released to the public in which he was called "a tireless worker, an inspiration to those who worked with you, and an able, honest and just leader. . . ."

Mr. Laird's retirement closed a 44-year career with the ICC (*Railway Age*, February 14, page 10).

Rothschild Confirmed as Commerce Under Secretary

Louis S. Rothschild, chairman of the Federal Maritime Board since July 1953, was confirmed by the Senate on February 25 as under secretary of commerce for transportation. He was named by President Eisenhower to succeed Robert B. Murray, Jr. (*Railway Age*, February 21, page 5).

Mr. Rothschild was sworn in March 2 with Secretary of Commerce Sinclair Weeks administering the oath of office.

Mr. Rothschild, former chairman of the board of the Inland Waterways Corporation, was unopposed at a hearing before the Senate Committee on

Interstate and Foreign Commerce, which reported his nomination favorably to the Senate.

The new undersecretary was born at Leavenworth, Kan., March 29, 1900, and received a PhB degree from Yale University. He is president and treasurer of Rothschild & Sons, Inc., a retail store chain in Missouri, Kansas and Oklahoma, and is a director of the Central Surety Corporation. He served in the Navy in the first World War.

Jelsma Heads ICC's Bureau of Statistics

Edward R. Jelsma, who had been transportation specialist for the Senate Committee on Interstate and Foreign Commerce, is the new director of the Interstate Commerce Commission's Bureau of Transport Economics and Statistics. On March 1, he succeeded William H. S. Stevens, who retired the previous day under civil service retirement rules (*Railway Age*, February 21, page 14).

Figures of the Week

Freight Car Loadings

Loadings of revenue freight in the week ended February 26 totaled 635,453 cars, the Association of American Railroads announced on March 3. This was a decrease of 19,582 cars, or 3.0%, compared with the previous week; an increase of 40,422 cars, or 6.8%, compared with the corresponding week last

year; and a decrease of 33,201 cars, or 5.0%, compared with the equivalent 1953 week.

Loadings of revenue freight for the week ended February 19 totaled 655,035 cars; the summary, compiled by the Car Service Division, AAR follows:

REVENUE FREIGHT CAR LOADINGS			
For the week ended Saturday, February 19			
District	1955	1954	1953
Eastern	115,702	109,593	126,230
Allegheny	123,246	119,880	146,325
Pocahontas	51,250	43,834	46,950
Southern	124,155	120,359	128,650
Northwestern	72,328	71,190	73,171
Central Western	111,791	99,869	111,532
Southwestern	56,363	53,898	56,572
Total Western District	240,682	224,957	241,275
Total All Roads	655,035	618,623	689,430
Commodities:			
Grain and grain products	46,059	43,877	37,968
Livestock	6,175	5,563	6,515
Cool	128,965	104,029	118,870
Coke	10,629	9,144	15,183
Forest products	42,802	39,137	44,246
Ore	14,311	15,493	20,074
Merchandise, i.e.l.	62,600	64,781	69,659
Miscellaneous	343,494	336,599	376,921
February 19	655,035	618,623	689,430
February 12	643,859	623,706	681,604
February 5	640,735	624,385	690,613
January 29	641,979	628,193	697,442
January 22	635,653	617,213	697,515
Cumulative total, seven weeks	4,464,404	4,356,220	4,849,731

In Canada.—Carloadings for the seven-day period ended February 14 totaled 67,039 cars, compared with 66,981 cars for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
February 14	67,039	30,373
February 14	68,575	29,538
Cumulative Totals		
February 14	419,688	191,514
February 14	404,089	176,160

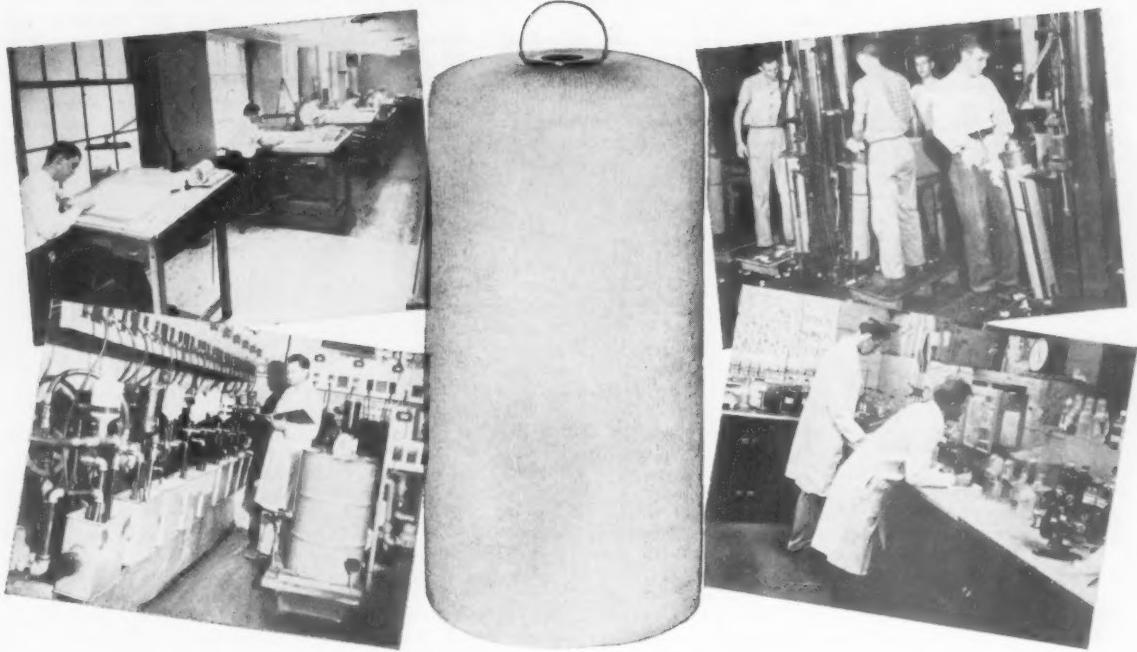
Law & Regulation

Mitchell Again Asks "Up-to-Date Regulation"

Speaking before the Western Railway Club at Chicago, February 28, Richard F. Mitchell, chairman of the Interstate Commerce Commission, renewed and emphasized the advocacy of equal and up-to-date regulation which he has expressed in recent months in addresses to such groups as the American Short Line Railroad Association and the National Industrial Traffic League.

"The Interstate Commerce Act," he said at Chicago, "was passed to cover a situation that does not now exist. Interpretations placed upon that act many years ago are out of date today. . . . Because the act has been on the statute books for better than 60 years is no reason in itself for condemning it or destroying it, but as conditions change, changes should be made both in the law and the interpretation thereof."

He would not, the ICC chairman



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The research, analysis, testing techniques and engineering that go into a WIX Oil Filter Cartridge do not show in the outward appearance of the product. But they DO show where it counts...in engine-saving performance.

WIX engineers fully appreciate the cost factors of repairs, maintenance and down-time with diesel equipment. They maintain a continuing study of fuel and lube oil filtration with the result that many Railroads across America are turning to WIX for qualified assistance with their oil filtration problems.

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emphasized, "abolish regulation," but rather "bring it up to date," and make "laws and interpretations thereof the same for all segments of the transportation industry." To accomplish those ends, he proposed specifically:

- Prompt elimination of unneeded passenger trains;
- Abolition of Section 22 rates;
- Limiting "exempt carriers" to movement from farms to primary markets;
- Elimination of waybills studies;
- Elimination of Rule 104;
- Elimination of "petty" regulation; and
- Regulation of private carriers to end the advantage they now have over common carriers.

Supreme Court Dockets T-O-F-C Injunction Case

The U. S. Supreme Court has before it an appeal by the International Brotherhood of Teamsters of an injunction prohibiting the union from interfering with piggyback operations on the New Haven.

The case dates to July 1952 when the New Haven obtained a restraining order against Boston Local 25 of the teamsters after union agents attempted to halt the service. The agents "persuaded" union truck drivers not to deliver trailers to the New Haven yards where they were to be loaded aboard flat cars.

Admitting this in its petition before the high court, the union declares that its action was not directed at the railroad but against truckers supplying trailers for piggyback service. The operation, they charge, lessens "over the road" work available for its members.

A final decree enjoining the union from any interference with the New Haven piggybacking was entered by Massachusetts Superior Court in March 1953 and was affirmed by the State Supreme Judicial Court last November. A damage award of \$4,727 was assessed against the two agents involved in the actual interruption of service. The teamsters assert that they do not represent any railroad employees but are bargaining agent for the employees of the New England Transportation Company, a truck subsidiary of the New Haven. The union argued that the railroad should have taken its case before the National Labor Relations Board whose jurisdiction assertedly superseded that of the state courts.

Shoemaker, Patchell, Protest New Jersey Taxes

Perry M. Shoemaker, president of the Lackawanna, speaking in Newark, March 1, recommended that the state's governor, Robert B. Meyner, appoint a "Standing Advisory Committee on Integrated Transportation for the State of New Jersey." "We see this committee as representing all forms of transportation," he said, "and such other

groups, public or private, whose intimate concern with the future of New Jersey transportation warrants their inclusion."

Railroads can ease both passenger and freight congestion, in metropolitan areas, Mr. Shoemaker said, for "a single railroad coach making one trip one weekday morning can take as many as 84 automobiles off our congested highways. What's more, you don't see trains piled up and choking both ends of the Lincoln Tunnel."

Speaking for the Associated Railroads of New Jersey before a luncheon meeting of business and political leaders, Mr. Shoemaker also pointed out that New Jersey railroads pay out more in taxes in the state than they earn in the state.

Mr. Shoemaker said the 12 Class I railroads in the association pay an annual tax bill of \$19,000,000 in New Jersey; and explained that rail taxes per mile of line in New Jersey are \$9,511, almost double those of the state with the second highest railroad tax, and almost six times the national average of \$1,648. He also outlined a three-point program for easing the railroad tax burden based, he said, on the "spirit" of the action eight years ago of the Constitutional Convention in calling for lower state use taxes on railroads. Specifically he suggested:

- (1) Reduction of the franchise tax;
- (2) Abolition of the \$800,000 rolling stock tax "on the basis that no such tax exists for our competitors"; and
- (3) Backing of any sound measures leading to long overdue reform in tax equalization.

Walter W. Patchell, vice-president of the Pennsylvania, illustrated the New Jersey real estate tax problem by telling of some waterfront property recently sold by the Lehigh Valley for \$40,000 "This property," he said, "had

been assessed at \$857,000. The annual tax bill on it was \$66,000, or \$26,000 more than the total selling price." He added that non-profit improvements such as escalators and landscaping around stations usually bring tax increases. Mr. Patchell explained that in many other states railroads manage to make up passenger deficits and show an overall profit, but that this is impossible in New Jersey because of the tax structure.

Organizations

"RR Night" at Motor City Traffic Club

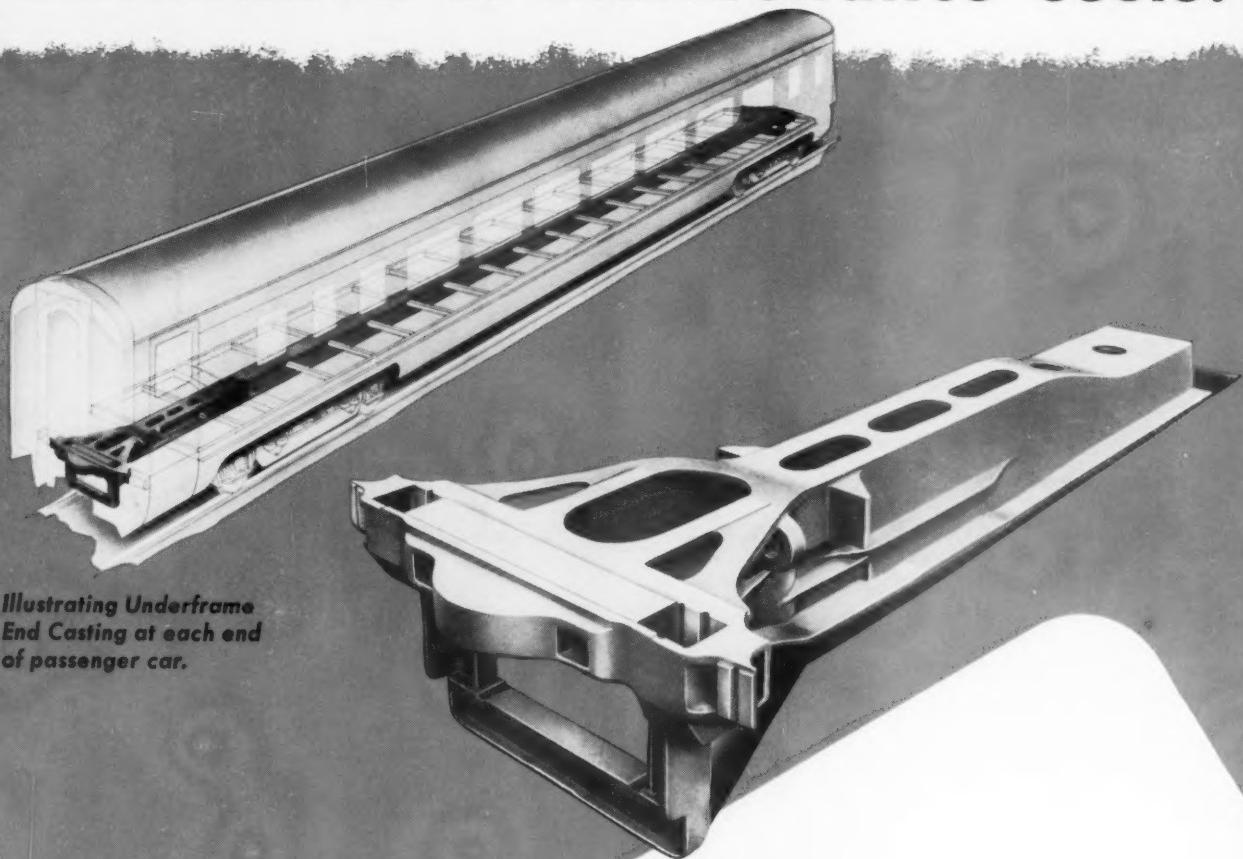
"This Is Railroad Progress" will be the theme of the first annual Railroad Night meeting of the Motor City Traffic Club of Detroit, at the Detroit-Leland Hotel March 14, at 7 p.m. H. E. Chapman, traffic manager of S. S. Kresge Company, will act as moderator. Railroad men participating will be David E. Smucker, president, Detroit, Toledo & Ironton, discussing "Specially Equipped Freight Cars"; L. E. Claranhan, vice-president, Wabash, speaking on "Piggyback Service"; and S. G. Massey, Jr., vice-president and general manager, Grand Trunk Western, on "Development and Training of Railroad Management." Spokesmen for industry will include John A. Wallace, director of traffic, Ford Motor Company; Norbert J. Brennan, director of traffic, Chrysler Corporation; B. J. Langford, assistant director of traffic, Chevrolet Motor Division, General Motors Corporation; and William S. Nevius, director of traffic, Wyandotte Chemical Corporation.

(Continued on page 48)



THE FIRST of 100 new trailers for the Lackawanna's piggyback freight service were delivered to the railroad by the builder—Fruehauf Trailer Company—at Avon Lake, Ohio, February 25. The initial delivery was 15 trailers, with the balance scheduled for completion within the next few weeks. To handle the 33-ft tandem-axle trailers—all of which have extra-heavy floors, and 15 of which are insulated—the Lackawanna has converted 80 heavy-underframe, 40-ft gondola cars to flat cars.

For Greater Strength, Safety and Elimination of Maintenance Costs!



Illustrating Underframe
End Casting at each end
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Commonwealth One-Piece Underframe End Castings

COMMONWEALTH Cast Steel Underframe Ends at both ends of the car provide the simplest and strongest construction for this vital part of the *passenger car* body. Their inherent strength and ruggedness assure greater passenger safety, minimize car damage in event of collision, and eliminate maintenance expense.

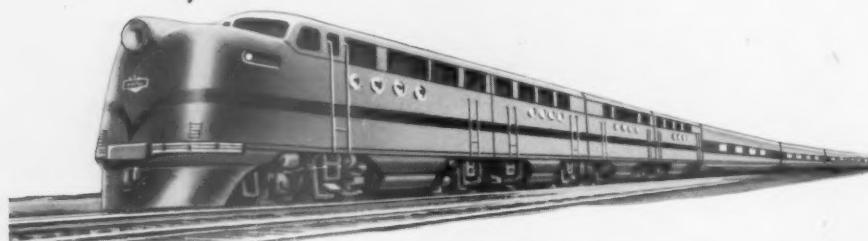
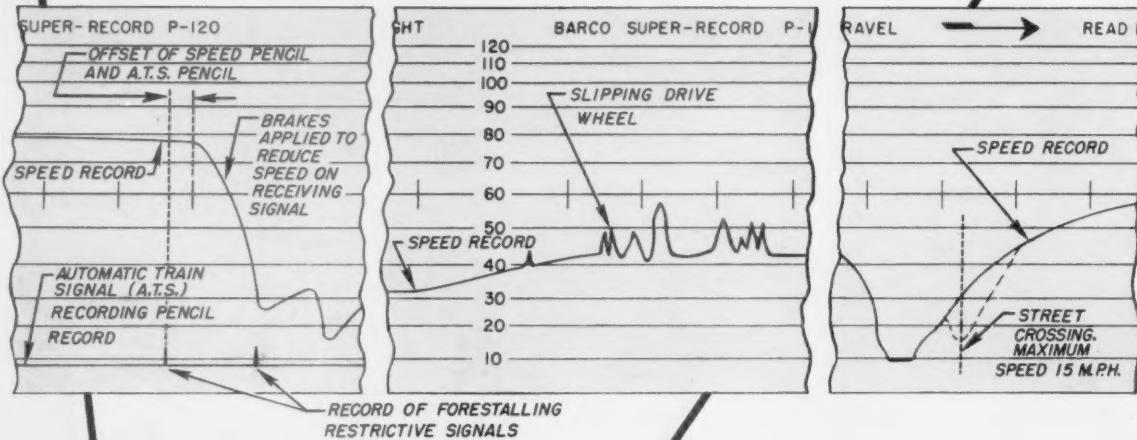
These Underframe Ends incorporate in a one-piece casting unusually strong draft gear pockets and coupler carriers and, if desired, may be provided with body bolsters cast integral.

For strong, better-built passenger cars, specify COMMONWEALTH One-Piece Underframe End Castings.



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TO SELL
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HERE'S a car to carry premium-freight to build traffic that pays a profit.

Cushion Underframe equipped **a** it protects lading against excessive impacts. With improved trucks **b** and improved bearings

c it is a smooth riding car. Extra wide doors **d** facilitate mechanical loading.

Load retainers **e** reduce shifting and surfaced floors **f** are smooth and clean.

Every device is proven . . . the protection afforded actual. It is the freight car of tomorrow ready today.

A WAUGH HIGH CAPACITY *Cushion Underframe*

100,000 CARS Waugh Cushion Underframe Equipped

The only Cushion Underframe that eliminates free-slack, the Waugh High Capacity Cushion Underframe protects cars and lading at impact speeds far above the closing speed of conventional draft gears.

Studies indicate that this cushioning device will cut lading damage cost and car repair costs by half.

Inquiries invited.

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190,000 freight cars have been built



COR-TEN Steel construction pays for itself many times over

It costs about \$187 more to build a 50-ton A.A.R. hopper car with body sheets of high strength, corrosion-resisting USS COR-TEN Steel of the same thickness as would be used in copper steel.

But this money is well spent—the use of COR-TEN Steel actually pays for itself many times over. First by saving the cost of one heavy repair and second by saving the time out of service such a repair involves.



USS HIGH STRENGTH STEEL

better with USS COR-TEN Steel since 1933

The turns to USS COR-TEN Steel to minimize freight car repair costs and to assure longer service life

THERE IS SOUND THINKING behind the use of USS COR-TEN by the St. Louis, San Francisco Railway Co.

The steadily rising cost of freight car repairs has in recent years focused attention on the economic value of construction that, by more effectively resisting damage and deterioration, will help to reduce such expenditures.

As a result, more and more railroads are adopting a *long range* point of view in their car building and rebuilding programs and are today using COR-TEN Steel construction which they know from experience will keep cars longer out of the repair shop.

Take hopper cars for example. During the normal (35 years) life of a car, body sheets of copper steel must be replaced *two or three times*. Under similar conditions and during the same service life, COR-TEN Steel hopper cars will require *only one* replacement of body sheets.

Railroads have estimated that the savings in repair cost thus accomplished are 5 to 6 times the extra first cost of COR-TEN Steel over copper steel. What's more, other substantial savings result from

avoiding the time out of service for the additional shopping required by the copper steel car.

It is with these facts in mind that the FRISCO line has in the past five years used USS COR-TEN Steel construction in 800 new freight cars: in 200 70-ton gondolas built in 1950, and in 300 70-ton drop end gondolas and 300 55-ton hopper cars built in 1953 by Pullman Standard.

These hopper cars have been built with future costs firmly in mind. USS COR-TEN Steel is used in all sheets that contact the lading. Their dimensions are significant: $\frac{3}{8}$ in. thickness in hopper chutes and longitudinal hoods; $\frac{1}{4}$ in. side sheets; $\frac{5}{16}$ in. in floor and cross ridge sheets.

When you consider that these sheet thicknesses are equal or heavier than AAR standards and remember that USS COR-TEN Steel has 50% higher yield point than structural carbon steel, has 60% higher endurance limit and 4 to 6 times the resistance to atmospheric corrosion of plain carbon steel or 2 to 3 times that of copper steel, you will agree that longer life than usual and low repair costs can confidently be predicted for this FRISCO equipment.

See "THE UNITED STATES STEEL HOUR"—Televised alternate weeks—
Consult your newspaper for time and station.

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U N I T E D S T A T E S S T E E L

Questions

The loading charge for use of heavy-duty flat cars, named in per diem rule 21, recently was increased from \$50 to \$100. What were the reasons for this increase?

At the 1954 annual meeting of the American Association of Railroad Superintendents, that body's committee on Greater Utilization of Diesel Power recommended "a mechanical examination . . . as a part of qualification for an engineman and an examination for newly qualified firemen." What is the practice on your road?

CONDUCTED BY G. C. RANDALL, district manager, Car Service Division (ret.), Association of American Railroads, this column runs in alternate weekly issues of this paper, and is devoted to authoritative answers to questions on transportation department matters. Questions on subjects concerning other departments will not be considered, unless they have a direct bearing on transportation functions. Readers are invited to submit questions, and, when so inclined, letters agreeing or disagreeing with our answers. Communications should be addressed to Question and Answer Editor, Railway Age, 30 Church Street, New York 7.

and Answers

FOR THE TRANSPORTATION DEPARTMENT

Loading charge compensates for extra cost of ownership.

"The \$50 loading charge on heavy-duty flats, placed in effect some time ago, was based on figures which indicated that such cars are much more expensive than the general run of flat cars. Thus, the charge was designed more nearly to compensate the owner of such cars for the cost of ownership than does the per diem rate. More recently, a study, conducted by the AAR, was made of the cost of ownership of all heavy-duty flats. The cost found was related to the average number of loading heavy-duty flat cars."—A. F. Swinburne further showed that a loading charge of \$100 would be necessary if owners

were to be adequately compensated for the cost of ownership. Accordingly, per diem rule 21 was amended to provide additional compensation for roads owning heavy-duty flat cars."—A. F. Swinburne, executive assistant, Car Service Division, Association of American Railroads.

[Watch this column next week for the latest quiz on application of car service rules in proper loading of cars. When you've figured out the answers send them to me. As usual, we'll print the names of everyone who gives the correct answers.—G.C.R.]

New book and new car pay dividends.

"Before we received any diesels, selected road foremen of engines attended educational classes set up by the manufacturer (Electro-Motive), and additionally rode diesels on a number of other railroads. These road foremen rode our first diesels in order to instruct enginemen and foremen in their duties. Engine service people were provided by the manufacturer and employees were furnished the builders' operating manuals. The material from these manuals was used in regular classes to instruct firemen and enginemen in the operation of diesels. Also, during the early dieselization days an Electro-Motive instruction and demonstration car was used for training purposes.

"When we approached full dieselization we realized that our old examination books for engineers and firemen could not be easily adapted to the change in motive power and operation. Consequently, we prepared an entirely new examination book, "Progressive Examination Questions and Answers," effective June 1, 1954. Presently, firemen are trained for engineers in accordance with this manual. [See below.] If today we had engineers qualified for steam engine operation only we would require them to pass the third-year examination, which qualifies for promotion from fireman to engineer, if they were to run diesels.

"Presently, we have our own instruction car. We invite engine crews to attend classes held on these cars. Our records show that 99% of the candidates have attended one or more classes. Pertinent questions addressed to instructors indicate a high degree of interest.

"We believe that our new examination form and the training car are paying liberal dividends in our educational program, not only with engine crews, but with our maintenance men

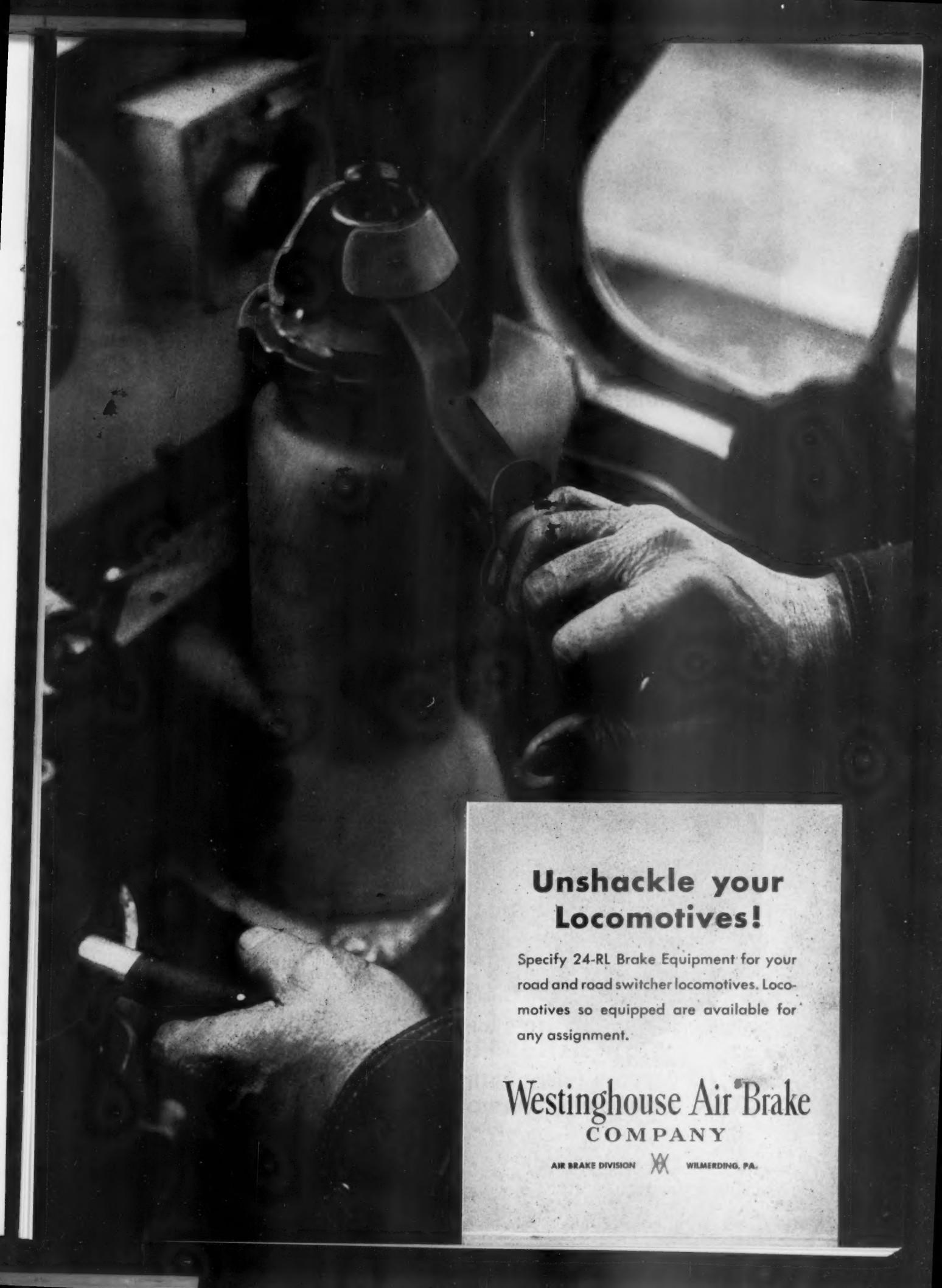
as well."—S. F. McGranahan, general manager, Erie (Western district).

On the Erie, engineers and firemen are required to have a copy of the "Progressive Examination Questions and Answers" with them at all times when on duty.

New firemen, or those now in service, receive instruction on the material in the book, as well as on such other topics as air brakes. "In order to qualify for the position as shop or road hostler, freight fireman to passenger fireman, or to be promoted to engineer, firemen must pass the prescribed examination . . ."

Examinations are on the progressive plan. Thus, firemen receive an examination at the end of the first year in service, another 12 months later, and a third after completing the second examination. Passing grade in all examinations is 80%. Should the man fail the first- or second-year exams, he is permitted up to two re-examinations within 60 days. Failure in these means separation from the service. Failure in the third-year exam is handled under provisions of the firemen's union agreement. But firemen and enginemen also must pass a proficiency in service exam with a rating of 85% or higher.

Questions (answered orally) on rating sheets are arranged in blocks of 10. A passing mark must be obtained for each block of questions. In addition, there are certain key questions in each block which must be answered correctly. Failure to answer one of these key questions means a failure mark for the entire block. Failure to pass any given block means the employee must be re-examined on the entire group of questions. And, in addition to answering these key questions in each group, a passing mark must be obtained on the rest of the questions in the block.—G.C.R.



Unshackle your Locomotives!

Specify 24-RL Brake Equipment for your road and road switcher locomotives. Locomotives so equipped are available for any assignment.

**Westinghouse Air Brake
COMPANY**

AIR BRAKE DIVISION  WILMERDING, PA.

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AND MANY YEARS OF FIELD TESTING



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A NEW STANDARD FOR RAILWAY PERFORMANCE...AN ALL NEW
ENGINEERED CAR LIGHTING AND AIR CONDITIONING BATTERY

FULL RATED POWER INITIALLY
FULL RATED POWER FOR A LONGER WORKING LIFE



Compare all railroad batteries . . . recognize why the EH Exide-Ironclad is a new standard for railroad car lighting and air conditioning.

Our standards are higher . . . the new EH Exide-Ironclad delivers 100% capacity initially—not 85%. Uniform quality assures sustained high capacity during longer useful life.

You get a new kind of a high capacity battery when you buy the EH Exide-Ironclad plus these Exide-Ironclad exclusive features:

- New alloys
- New plastics
- Slotted tube construction of the Ironclad Positive plate, permanently sealed on the bottom with polyethylene tube sealer. More active material is exposed to the electrolyte, resulting in greater power. More active material is retained, providing higher battery capacity for a longer working life.

New engineering designs toward simplification and new modern manufacturing facilities assure high, uniform quality.

Write for specifications of this new standard for railway battery performance.

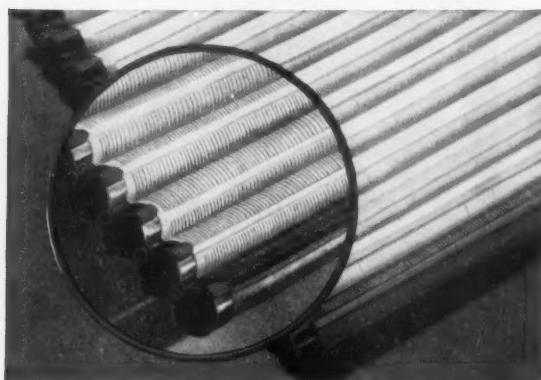
Exide INDUSTRIAL DIVISION, The Electric Storage Battery Company, Philadelphia 2, Pa.



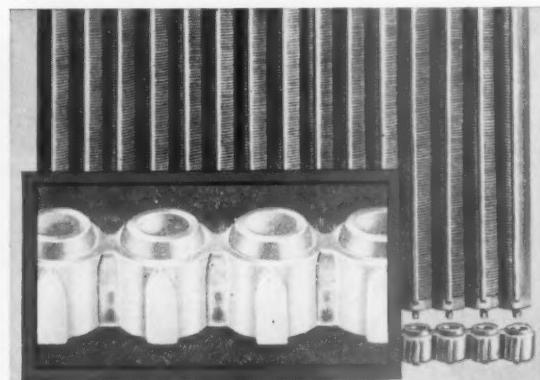
10% LONGER PLATES—10% more active material in the same space for a new kind of high capacity battery performance... new positive plates balanced with new stable voltage negative plates for full rated power initially... full rated power sustained for a longer working life.



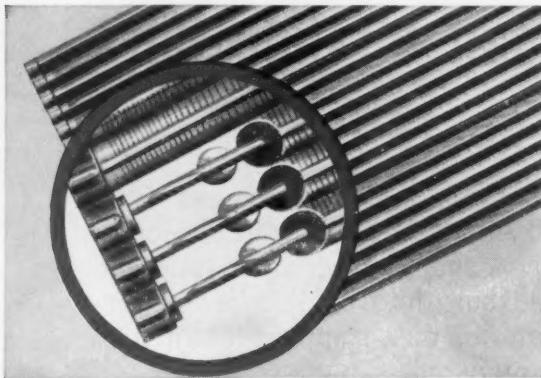
QUALITY CONTROL—continuous research... simplification of the design... new manufacturing techniques in casting and blending... more certain controls of production... result in high, uniform quality.



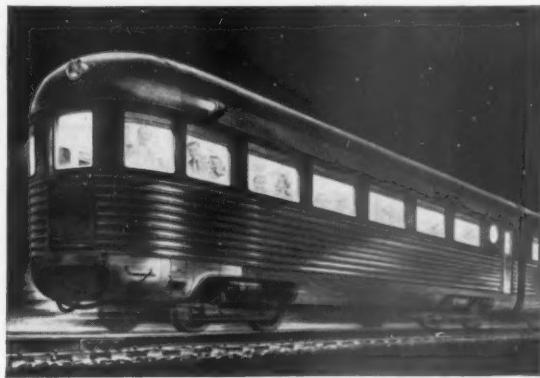
POLYETHYLENE SLOTTED TUBES—the non-oxidizing plastic tubes which retain active material in contact with the grid spine, yet permit the electrolyte to penetrate throughout the active material.



POLYETHYLENE TUBE SEALERS—this acid-proof plastic sealer fits snugly into the bottom of positive plate tubes, sealing in the active material... prevents shorts... increases useful working life of battery.



SILVIUM®—the latest development in grid alloy prevents wear of the positive grid spines of the Exide-Ironclad Positive plate... assures high sustained power and longer life.



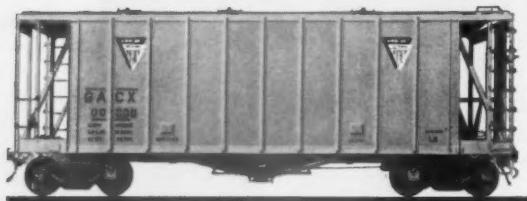
ADD THEM ALL UP! You get... Bright Lights... Comfortable Cars... Worry-Free Performance... Lowest Overall Costs... The Best Battery Power Buy—At Any Price!

YOUR PASSENGERS DESERVE THE BEST
specify the NEW EH EXIDE-IRONCLAD
THE BEST POWER BUY—AT ANY PRICE

No complex loading
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any way you
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the improved AMCCW

Chilled Car Wheel

is stronger,

safer, better

than ever

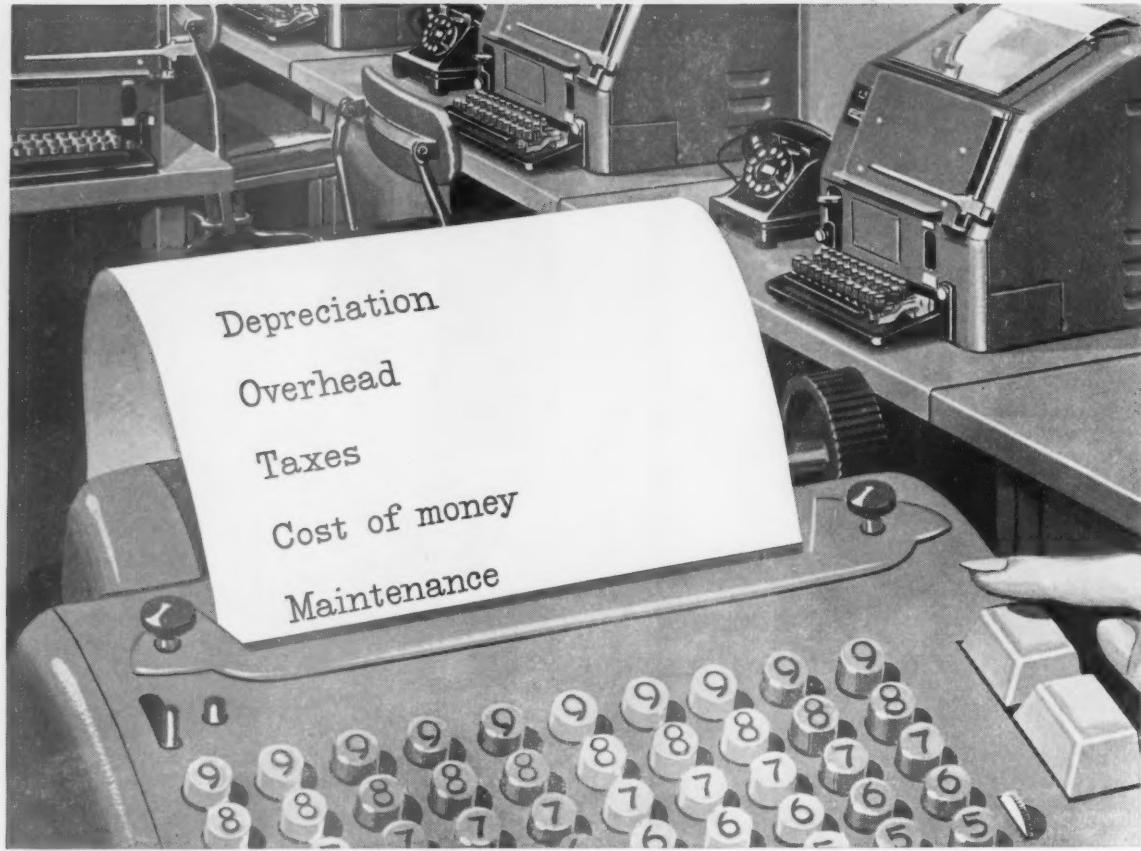
- Harder-than-steel tread metal
- Tougher, more resilient hub to dampen shock
- Best freight car safety record by ICC figures
- Faster to bore, easier to mount
- Less danger of loose wheels
- Smaller investment in wheel inventories
- Less wear on rails
- Less wear on brake shoes
- Less flange-rail resistance
- Much lower in first cost or replacement cost
- Faster delivery from plant on or near your line
- Greater all-round economy

64-page booklet, "Chilled Car Wheel," mailed on request



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HAVE YOU ADDED UP ALL THESE COSTS?

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Bell System communications are low in cost. You pay only a fixed monthly charge for services and facilities tailored to your exact needs. No more, no less. Your capital is not tied up but left free for income-producing investments in your business.

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BELL TELEPHONE SYSTEM



TELEPHONE

TELETYPEWRITER

MOBILE RADIO

TELEMETERING AND REMOTE CONTROL CHANNELS

THE ENGINEER'S REPORT

DATA	
LUBRICANT	<i>Calol Rail + Flange Lubricant</i>
LUBRICATOR	<i>Mechanical</i>
LOCATION	<i>California + Oregon</i>
CONDITIONS	<i>Ambient temp. -20° F. to 110° F. Continuous use</i>
TEST PERIOD	<i>10 months</i>

New rail-flange lubricant meets toughest conditions!

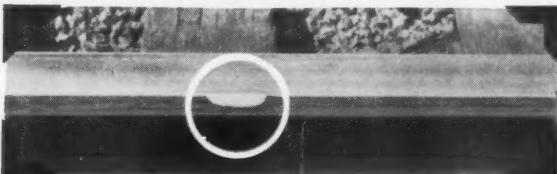
CALOL RAIL AND FLANGE LUBRICANT, tested continuously for 10 months at six locations on a major western railroad, proved entirely satisfactory. Although air temperatures ranged from 20 below zero to 110 above, the lubricant retained correct consistency for good pumpability both in storage and lubricators. Grease buttons on wiping bars remained in position even in direct sunlight. Coverage was excellent, as demonstrated by photographs below of rails at successive curves serviced by the lubricator shown at right.



FILM OF CALOL RAIL & FLANGE LUBRICANT at first curve. Circled area is wiped clean for contrast.



FILM OF LUBRICANT on second curve from lubricator.

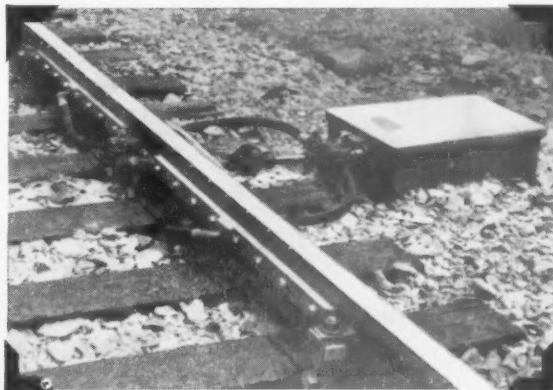


THIRD CURVE. Note grease is still well distributed.

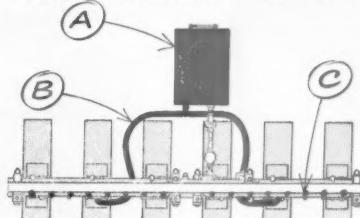


FREE CATALOG: "How to Save Money on Equipment Operation," a new booklet full of valuable information, will be sent you on request to Standard Oil Company of California, 225 Bush St., San Francisco, Calif.

TRADEMARK "CALOL" REG. U.S. PAT. OFF.



How Calol Rail and Flange Lubricant Cuts Track Maintenance Costs



- A. Stable in use and storage—will not separate, "bleed" or harden.
- B. Pumps freely from lubricators from below zero temperatures to over 100 degrees. Retains even consistency.
- C. Forms stable buttons which resist high temperatures. Very adhesive—carries for long distance on rails. Resists tendency to pull over tops of rails.

FOR MORE INFORMATION about this or other petroleum products of any kind, or the name of your nearest distributor handling them, write or call any of the companies listed below.

STANDARD OIL COMPANY OF CALIFORNIA, San Francisco 20 • STANDARD OIL COMPANY OF TEXAS, El Paso
THE CALIFORNIA OIL COMPANY, Barber, New Jersey • THE CALIFORNIA COMPANY, Denver 1, Colorado

EXECUTIVE OFFICE MEMORANDUM

To: JKR

Recheck our car upgrading program for this year and let us know what improvements are intended that will meet the suggestions in the attached resolution.

Take a good look at National's "Impact Report" covering impact tests. Their Rubber-Cushioned Draft Gears seem to hold the answer to this resolution. National's report shows coupler force reduction of 33%; center sill stress reduced 50% at high impact speeds.

Better give serious consideration to this draft gear betterment on all cars being upgraded and on all new cars.

RWT

MORANDUM

Executive Office
Memorandum, please change all car
upgrading and new car specifications to
read "National MF-275 Rubber-Cushioned
Draft Gears".

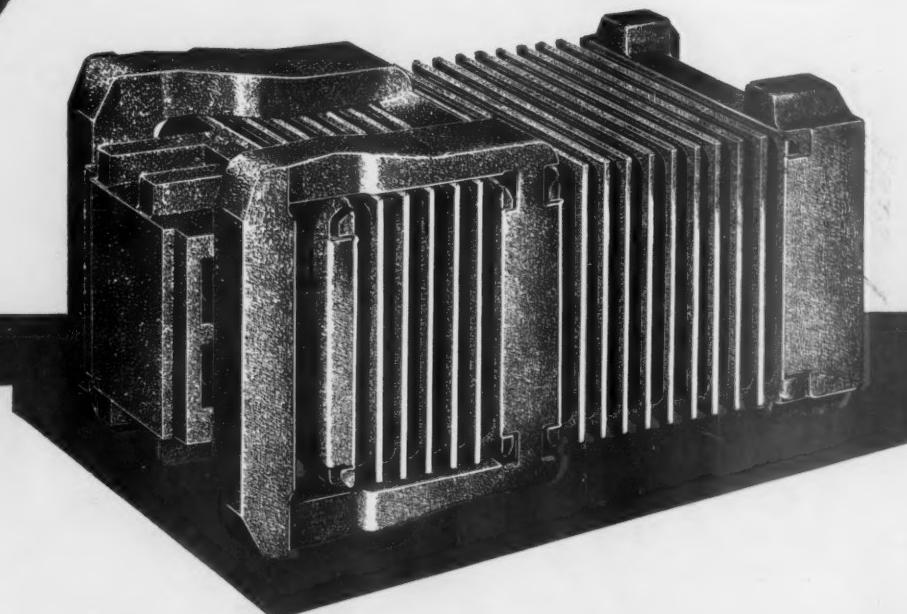
Lower coupler force and lower center
sill stress will lower our maintenance
costs on car repairs in addition to greater
loading protection.

***RESOLUTION NO. 2**

BE IT RESOLVED that railroads in all Board territories are requested to make greater use of shock absorbing draft gear and other equipment designed to reduce the effect of excessive car impacts.

* National Management Committee Report,
National Association of Shippers
Advisory Boards,
Proceedings—Eighteenth Annual Meeting
October 14, 1954
Louisville, Kentucky

NATIONAL MF-275 RUBBER-CUSHIONED DRAFT GEAR



NATIONAL MALLEABLE and STEEL CASTINGS COMPANY

Cleveland 6, Ohio

COUPLERS • YOKES • DRAFT GEARS • FREIGHT TRUCKS • SNUBBER PACKAGES • JOURNAL BOXES and LIDS

GA-3688

Piggy-Back . . . That's Progress!

By Hungerford

WHY
DIDN'T WE
THINK OF
THAT?



We will be glad to send you enlarged copies of this Hungerford cartoon (without advertising copy) for posting on your office and shop bulletin boards, or a cut for your company magazine, at cost.

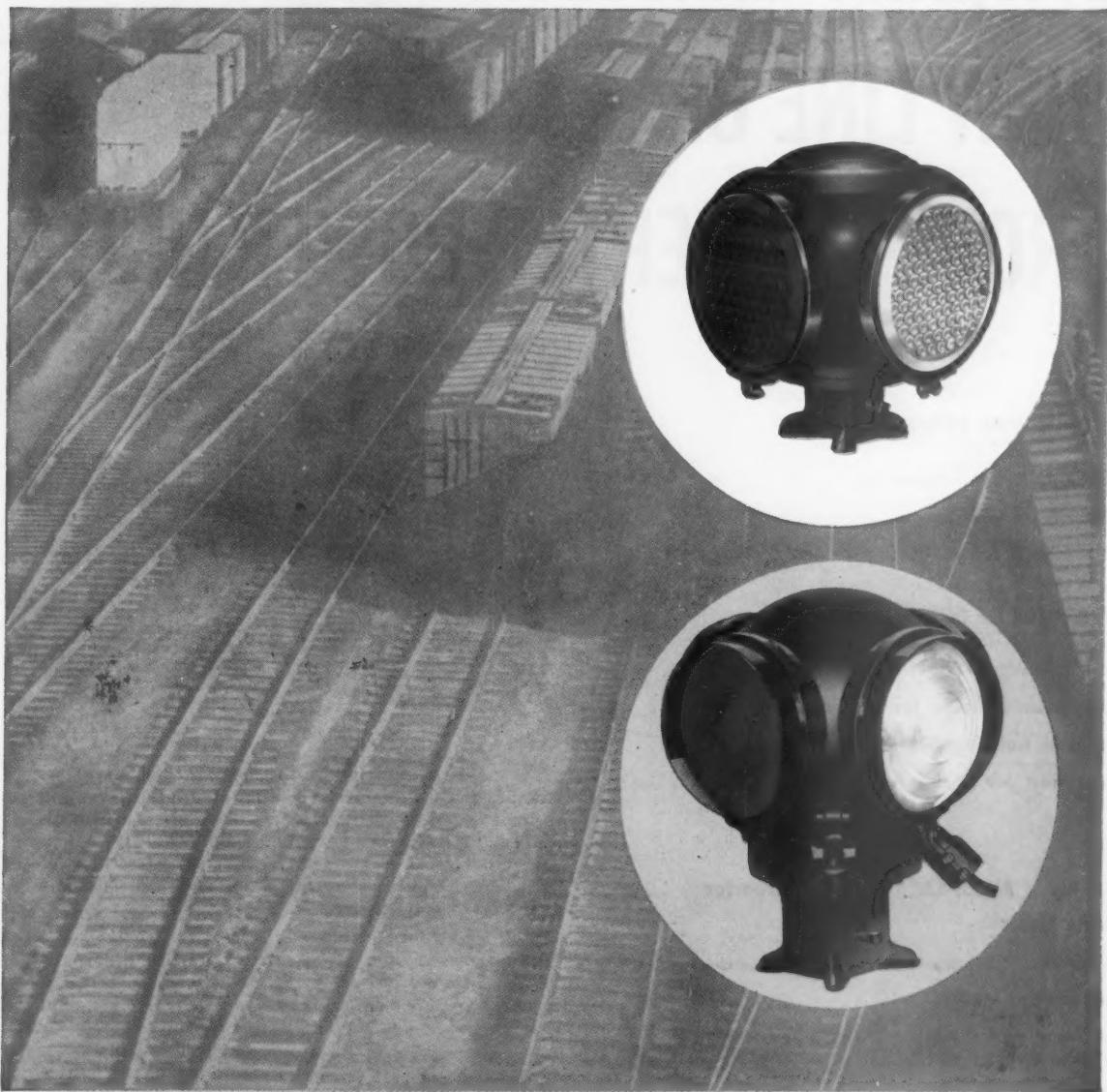
E Edgewater Steel Company

PITTSBURGH, PA.

Serving America's Railroads

ROLLED STEEL TIRES
WITH ROLLED STEEL WHEELS
AND DRAFT GEARS





24 hours a day, **Adlake** switch lamps stay on the job!

There's no "time off" for Adlake Switch Lamps...they're on the job, with complete dependability, 24 hours a day! They are designed to give trouble-free service, at minimum cost.

Whether fitted with standard or reflex lenses, whether made of cast or sheet metal, Adlake Switch Lamps can be counted on to meet every need of railroad

operation. The electric lamps can be furnished for battery or line current, as desired.

Let us show you how Adlake Lamps can save you money and give you added efficiency! Address The Adams & Westlake Company, 1150 N. Michigan, Elkhart, Indiana. No obligation, of course.

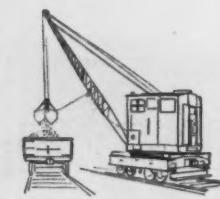
THE Adams & Westlake COMPANY

Established 1857 • ELKHART, INDIANA • New York • Chicago

Manufacturers of ADLAKE Specialties and Equipment for the Railway Industry



Caterpillar announces A NEW LINE OF TORQUE CONVERTER POWER UNITS



WIDE CHOICE OF POWER UNITS

Engine and torque converter

Engine, clutch and torque converter

Engine, clutch, torque converter and reverse gear

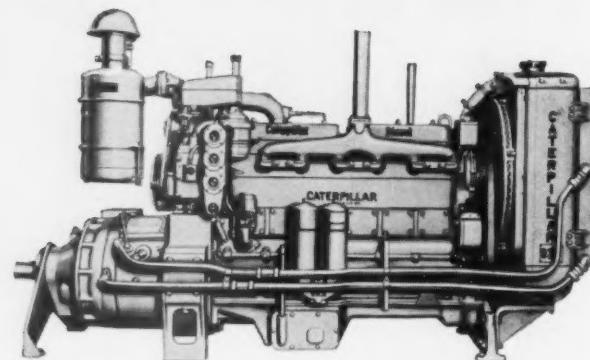
WIDE CHOICE OF OUTPUT SHAFTS

Standard heavy-duty drive for side loads

Narrow chain housing for side loads

Wide chain housing for side loads

Output shaft for in-line loads only



Now, to provide you with a greater selection of power packages, Caterpillar offers a new line of torque converter units. As many as twelve different torque converter arrangements are available for each of six Cat Engines, up to 480 HP. Whatever your power needs in locomotives, rail cars, excavators, emergency and locomotive cranes, you'll find the right unit in Caterpillar's complete line.

In offering torque converter power, Caterpillar has combined extensive research with years of practical application in the field. Here are owners' reports of units on actual jobs: "Live and snappy with plenty of power" . . . "We get an abundance of power out of these torque converter power units."

Either as original or replacement power, it will pay you to check the advantages of torque-converter-equipped Cat Diesels. Each is matched to do more work at lower cost with less down time than any competitive unit. Leading manufacturers of railroad machinery can supply these money-makers in the equipment they build.

For complete details about these production boosters, see your Caterpillar Dealer. He has the experience and technical knowledge to help you with your power problems. He has trained personnel who know how to install engines and torque converter power units in railroad equipment. Call him today!

Caterpillar Tractor Co., Peoria, Illinois, U.S.A.

CATERPILLAR*

* Both Cat and Caterpillar are registered trademarks—®

THE NEW STANDARD
OF TORQUE
CONVERTER POWER

CATERPILLAR TRACTOR CO., PEORIA, ILLINOIS, U.S.A.

Please send me further information on Cat Diesel Torque Converter Power Units

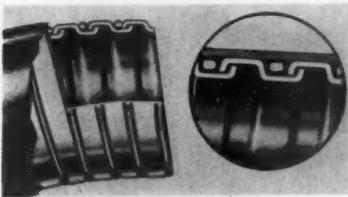
Name _____

Company _____

Street _____

City _____ Zone _____ State _____

What's New in Products



Flexible Conduit

A new flexible-metal, electrical wiring conduit is fully enclosed in a tough, waterproof, synthetic cover. It will be known as Type U2OSCB with black synthetic cover with square locked construction, galvanized steel core, aluminum wire wound on sizes $\frac{3}{8}$ in. to $\frac{3}{4}$ in., and Type U2OSCG with gray synthetic cover available from $\frac{3}{8}$ in. to 2 in. conduit sizes. This new conduit is said to provide complete protection against moisture, dirt, oil, fumes, and chemicals. It is suited for applications requiring flexibility for connections in tight places, and where oil or moisture are present. *Universal Metal Hose Company, 2133 South Kedzie ave., Chicago 23.*

Higher-Strength Wire Rope

A new line of wire ropes, with steel cores, is said to have 15 per cent greater strength than the strongest grade marketed heretofore. Laboratory tests, as well as on-the-job observations over several years, have proved that the rope has higher resistance to wear from bending and abrasion. The rope, available primarily in preformed constructions, in sizes ranging from $\frac{1}{4}$ to $3\frac{1}{2}$ in., was developed for use on shovels, draglines, wagon-scrapers, earth-moving equipment, hot-ladle cranes, etc. *John A. Roebling's Sons Corporation, Trenton 2, N. J.*

Metal Equipment Spray Coating

This black coating, Bitumastic K, is made of processed coal tar pitch mineral filler, solvent and granulated cork. It requires no primer. One application gives a covering up to $\frac{1}{2}$ in. thick which, it is said, protects against corrosion with a moderate degree of insulation.

The cork mastic was developed for use where metal tanks containing heated materials require corrosion pro-

tection as well as insulation to prevent major heat losses. It may be used where massive insulation, installed at greater cost, is not required. Such protection is suited for oil storage tanks, asphalt storage tanks or any metal tank, the contents of which are kept at temperatures up to 150 deg F. It can also be used to protect corrugated steel sidings and heating and ventilating ducts. *Tar Products Division, Koppers Company, Pittsburgh 19.*



Industrial Radiography

The Iridium Isotron allows sources of up to 75 curies to be exposed at distances of up to 50 ft from the operator, who can expose the source while remaining behind a concrete wall or personnel shield. It was specifically designed for the remote handling of Iridium 192 in industrial radiography.

The device can be utilized for the kind of shots that cannot be handled conveniently with X-ray equipment. For example, panoramic exposures where several specimens are arranged around the source and shot simultaneously, and internal exposures where the source is exposed within a cavity in the specimen and the film is wrapped around the outside.

The Isotron is completely portable, requires no power and weighs only 125 lb. Exposure times comparable with those for X-ray equipment are obtainable. It has greater sensitivity, and still retains nearly the range and latitude of Cobalt 60. *Gamma Corporation, Mansfield, Mass.*

Performance Improved

Increased drawbar horsepower and faster engine speeds with a corresponding increase in travel speeds have been announced for three models of Caterpillar tractors. It is stated that these improvements will result in improved performance for various models as follows:

D6—drawbar horsepower increased from 66 to 75 and rpm from 1,400 to 1,600; D-4—drawbar horsepower increased from 43 to 48 and rpm from 1,400 to 1,600; D2—drawbar horsepower increased from 35 to 38 and rpm from 1,525 to 1,650. *Caterpillar Tractor Company, Peoria, Ill.*

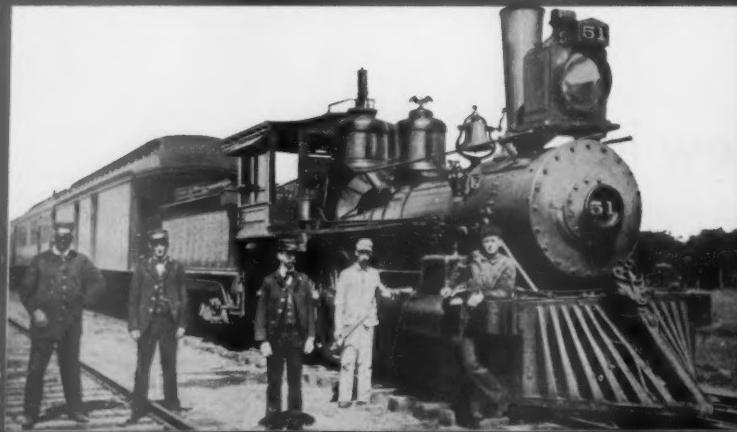
Aluminum Siding

A new siding material, Alcoa ribbed industrial siding, has been developed as a low cost material for enhancing the appearance of industrial buildings. The sheets are intended primarily for frame-type structures, but also can be used as facing sheets on concrete block buildings.

The siding is available with an embossed finish in lengths from 5 ft to 18 ft. The ribbed design of the sheet is achieved by trapezoidal corrugations, and the embossed surface gives a stuccoed effect which diffuses light as it strikes the bright aluminum surface. The siding sheets are .032 in. thick, and are made from the same aluminum alloy as is used in other Alcoa industrial roofing and siding products.

To apply the sheets to structural steel framework, Widman fasteners, self-tapping screws, Nelson Rivweld studs and other conventional fasteners can be used. On old or new masonry structures the ribbed sheet can be applied with approved expansion-type fasteners or with fasteners fired from powder-actuated guns.

The manufacturer reports that the ribbed sheets are easily adaptable to the new type "sandwich" wall construction. By using two layers of aluminum siding with a center layer of glass fiber insulation, a wall can be built with an insulation value reported to be the equivalent of that of a 24-in brick wall. *Aluminum Company of America, Pittsburgh.*



No. 51, a 4-4-0 built by Cooke in 1877, had a splendid record over the turn of the century as power plant for the famed Frisco "Meteor" on the St. Louis-Oklahoma City run. Note the fancy cab and other handsome adornments of this veteran.



Then...and now...serviced with Esso Railroad Products

Valuable years of experience in research and development, along with continual testing on the road and in the lab, stand back of the outstanding performance of famous Esso Railroad products.

Diesel Fuels
ESSO ANDOK Lubricants—
versatile greases
ARACAR—journal box oils
ARAPEN—brake cylinder
lubricant
ESSO XP Compound—hypoid
gear lubricant

DIOL RD—Diesel lube oil
COBLAX—traction motor gear
lube
VARSOL—Stoddard Solvent
SOLVESSO—Aromatic solvent
ESSO Weed Killer
ESSO Hotbox Compound
AROX—pneumatic tool lube

CYLESSO—valve oil
ESSO Journal Box Compound
Asphalt
Cutting Oils
Rail Joint Compounds
Maintenance of Way Products
Signal Department Products
RUST-BAN—corrosion preventive

ESSO

RAILROAD PRODUCTS

SOLD IN: Maine, N. H., Vt., Mass., R. I., Conn., N. Y., N. J., Pa., Del., Md., D. C., Va., W. Va., N. C., S. C., Tenn., Ark., La.

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Mass. — Pelham, N. Y. — Elizabeth, N. J. —
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Va. — Charlotte, N. C. — Columbia, S. C. —
Memphis, Tenn. — New Orleans, La.

What Does Big Highway Program Mean for RR's?

The \$101 billion, ten-year highway building program sent to Congress by President Eisenhower on February 22 has plenty of significance for railroaders. While, along with everybody else, they must recognize the need for new highways—they will be on sound ground (in our opinion) if they have serious reservations about this program. It threatens to provide still more luxurious facilities for their commercial competitors, without compensatory payment.

The biggest effect of the proposed program, however, would be to stop in its tracks what has been a definite trend toward injecting "market place" control of highway construction. With the growth of toll roads, highway transportation had begun to forsake the area of socialism and was entering the area of the "market place"—where expenditures are made in response to economic (rather than political) demand.

Apparently a lot of pressure groups became scared of this trend. For years these groups had been contending that toll roads wouldn't work—and, all of a sudden, it was becoming evident that toll roads are an outstanding success. In other words, it was revealed that the taxpayers could forget all about providing highways for long-haul transportation; that the users of such roads are satisfied to finance such facilities without any burden whatever on the taxpayers. These facts stand out about this project:

(1) Of the \$101 billion to be spent over the ten-year period, \$31.3 billion would be furnished from federal funds, according to the White House proposal. Of this, \$25 billion would be new expenditures; the remaining \$6.3 billion are a continuation of federal "aids" already being spent on an annual basis.

(2) The \$25 billion of additional federal expenditures would be obtained through special borrowing outside the regular orbit of the regular debt. Since the ultimate security behind this special debt would be the credit of the government, the bonds would become a burden upon general taxes, in the event it became economically—or, more important, politically—unfeasible to levy the debt-carrying charge upon highway users.

(3) The bulk of the \$101 billion would come

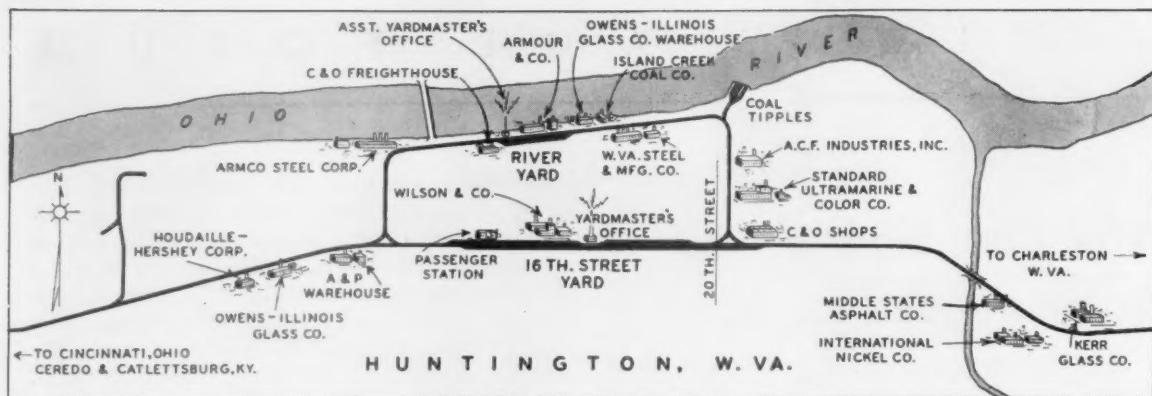
from states, counties and municipalities. The record shows that the majority of these have always charged a large proportion of the cost of roads and streets against the general taxpayer—including the railroads. With official encouragement to spend more, it seems unlikely that they would be able to resist the impulse to push the general taxpayer even more deeply into the "business" of providing highway facilities.

The burden of the recommendation of the President's Highway Advisory Committee is that congestion is forcing the country to spend a greater portion of its money on highways than it has in the past. This is correct, but the pressure could have been allowed to operate through the market place and it would have produced the necessary highways. There's no excuse for providing economic services by tax-financing when user-financing has so clearly shown its ability to do the necessary job.

Of course, a big reason why highways are congested is that the power of the market place has been restrained from exerting its full effect. Too many "super" roads have been provided without commensurate charges on users, and this condition has naturally inflated "demand." The same kind of chaos has resulted from laws which hold down rents artificially.

The unit maintenance costs of highways have, at the minimum, increased 100 per cent over prewar—due both to inflation and to increased damage by heavier and heavier freight vehicles—but in few if any states have user charges (gas tax, etc.) doubled in that period. The proportion of local money left for new road building has shrunk. Thus the country's highway network has been plagued more and more by those unfailing companions of socialism—chronic "need" and "inadequacy." Supply never can equal demand, for a product that is invariably sold far below its cost of production.

The growth of toll roads, plus more realistic user payments on highways in long-haul use, if allowed to continue, would put congestion to rout, by adjusting supply and demand through the market place. The plan of the Highway Advisory Committee now passed on to Congress is a reactionary measure because it seeks to minimize reliance upon toll roads and to greatly increase the element of general tax support for highway transportation. It is ironical that the strong impetus for action of this kind should be coming from business interests which like to consider themselves "conservative."



How Yard Radio Pays Its Way

... ON THE C&O AT HUNTINGTON

Radio-equipped switch engines handle work assignments at railroad shops, main freight train yard, industrial switching area and haul coal to washing plant and river docks

The Chesapeake & Ohio has installed radio on 17 locomotives and in four yard offices at Huntington, W. Va. Improved service to shippers and more efficient yard operations have been realized, and the resulting economies, such as having locomotives work a greater area, amount to about \$28,000 annually.

These locomotives are used in switching service in a yard and industrial area 5.5 miles long by 1.5 miles wide, and in local freight service extending 25 miles east and 10 miles west. A port city on the south bank of the Ohio river, Huntington is on the east-west, three-track C&O main line, near the Kentucky state line.

The main yard at Huntington is at 16th street. At this yard, about 22,000 cars per month are received and forwarded, they being set off and picked up by road freight trains. All classification of cars in this yard is done by radio-equipped diesel switchers.

There is one fixed radio station at the 16th street yard with a remote control unit in the yardmaster's office, and a master remote unit in the terminal trainmaster's and chief clerk's office. The yardmaster keeps in constant communication with switch engine crews and is able to give them "up to the minute" instructions concerning their work. These radio equipped locomotives also work at the passenger station and the C&O shops (locomotive, passenger cars and general stores.)

Industrial Switching Covers Wide Area

Besides the 16th street yard, the C&O has a River yard at Huntington parallel to and north of the main line. Belt lines at 3rd and 23rd streets connect this yard to the main line. A spur line at 15th street West runs

from the main line north to the river. The C&O freight house is at River yard and 10th street. Many of the 135 industries which the C&O serves in Huntington are concentrated in this area. Switching service here is also done by radio equipped locomotives, and crews work under the direction of two assistant yardmasters; one at River yard near 10th street, and the other at the River yard lead at 20th street.

To facilitate these operations—particularly for the assistant yardmaster at 10th street because he also directs switching operations at the freighthouse—a fixed radio station was installed in a separate wood building near the freighthouse. This building serves as an office for the assistant yardmaster, and the radio enables him to keep in close contact with switchers working in the River yard.

Radio equipped locomotives also are used in local freight service along the main line as far east as Hurricane, W. Va. (24.9 miles from Huntington) and as far west as Catlettsburg, Ky. (9.8 miles). The 16th street yardmaster is able to call these trains on the road by radio and give crews "last minute" instructions. Also when they approach Huntington crews radio in to find out what yard track they are to pull in on.

Coal Traffic Is Important

Much of the coal handled at Huntington comes from branch lines east of the city, ranging from 10 to 65 miles distant. Each month approximately 10,500 loaded 70-ton cars are set off at Huntington, and are classified in 16th street yard. About 7,000 cars per month are destined for three coal tipplers on the Ohio river (River yard) where the coal is dumped into barges for ship-

ment down the river to Cincinnati and beyond; and 3,500 cars per month are taken to the Truax-Traer coal washing plant at Ceredo which is 7 miles west of Huntington.

Radio-equipped switchers move the coal down to the River yard, and return the empties to 16th street yard. Radio-equipped road switchers haul the coal to Ceredo, and return with loads and empties, and interchange from the Norfolk & Western.

After washing and grading, some of the coal taken to the washing plant is transferred to barges, and the rest is reloaded into C&O cars for further shipment on the railroad. Radio has played an important part in this operation because the 16th street yardmaster now is able to call a crew and tell them "to button up everything, and rush back." Previously he had to telephone to someone in Ceredo, asking them to locate the crews and relay to them the particular message (often time consuming).

Radio Provides Flexible Operations

Not only is better service being rendered by the C&O in the Huntington area because its switch engines are radio equipped, but a more flexible operation has been achieved. For instance, the yardmaster will not hesitate to call an engine off a regular switching assignment to do a special job, mainly because he can so quickly call the crew and explain the job in detail, enabling them to get on it right away.

Recently No. 95 (westbound merchandise train) had a bad order car to be set out; so the yardmaster radioed the depot switcher to set out the car. This the crew did promptly, so that they had time to return to the passenger station to work passenger trains No. 3 and 47.

Without radio, the yardmaster would have spent 10-15 minutes contacting them, probably by telephone; which in this case would have been too close to the passenger train time to allow them to do the job. Thus the nearest switching crew was able to pull the bad order car because the yardmaster was able to give them practically instantaneous instructions.

Delays to Local Freights Reduced

Radio has reduced delays to the local freight trains. For example, the conductor of the Catlettsburg local run sometimes had to wait for his switch list before he could leave 16th street yard. Now with the radio equipped locomotive, the local leaves when ready, and the yardmaster radios the complete switch list to the conductor en route.

Most switching crews start out with definite assignments on their truck and the yardmaster changes their instructions and work assignments as required. Formerly a crew often was "lost" from the time they left the yard office until they returned. Now they are called regularly and they radio in when they finish a particular job, keeping the yardmaster informed of their whereabouts.

Now when industries call in requesting "rush spots," i.e., extra cars or loaded cars to be pulled for a train connection, the yardmaster radios a crew to answer



YARDMASTER radios instructions to switch crews.



ENGINEMAN informs yardmaster of crew's location.



CREWMAN talks over footboard speaker to engineer by intercom, and by radio to yardmaster.

the call. Often an engine working in the area will do the special switching job almost immediately. Now that the industries know about the radio-equipped switch engines, most companies are taking advantage of the improved switching service, and do not hesitate to call in for "rush jobs."

Before radio was available, it was customary for a switching crew to cover a certain route doing each industry in turn with little or no backtracking for special switching. After the crew had serviced an industry, it would receive no more switching service until the next day. As a result, cars loaded late in the afternoon often were not picked up for outbound trains until the next day.

Now this 24-hour delay has been practically eliminated because when an industry calls the yardmaster telling him that loads are ready to be pulled, he instructs switching crews to backtrack to take care of them for outbound connections, or he assigns another crew to pick up the late cars. Radio also helps the yardmaster in planning make-up of outbound trains, because switching crews radio in and tell him the number of outbound cars or loads they are picking up.

Armour, Swift, Wilson or the A&P often have rush cars of meats or perishables which they want delivered to their warehouses as soon as possible after the cars arrive in Huntington. Without tying up a switching crew to wait for an inbound merchandise train, the yardmaster radios a switching crew "at the last minute" to pull the cars from the arriving train and rush them over to the packers or grocers. Such operations are now being performed in 50 per cent less time than previously. Often a car is spotted at the Swift unloading dock, for example, less than 30 minutes after the car arrives in the 16th street yard.

Footboard Speakers Prove Helpful

Footboard speakers are installed on the front ends of all locomotives. Two push-buttons are provided; one for "intercom" between the footboard and the locomotive cab, the other for broadcasting over the radio. When the yardmaster calls an engine, his voice is also heard over the footboard speaker, so he can page the crew foreman. The foreman goes to the footboard to answer, using the radio push-to-talk button. The intercom enables the foreman on the footboard to confer with the engineer about switching moves.

At 16th street, the radio is at a floodlight tower, with intercom provided between the three remote control units at that point. Thus the yardmaster, chief clerk and the terminal trainmaster can talk to each other without "going on the air." At River yard, the radio equipment is in a separate wood building which the assistant yardmaster uses for an office. He uses radio to talk to yard engine crews and also to the 16th street yardmaster. Although these two yardmasters can call each other by telephone, they now use radio because they can pick up the handset and call each other directly and "the line is never busy."

Planning and installation work was carried out by railroad men under the direction of P. A. Flanagan, superintendent of communications. Radio equipment was furnished by the Westinghouse Electric Corporation.

Benchmarks

and | Yardsticks

A COUPLE OF WEEKS AGO the American Society of Mechanical Engineers began its year-long celebration of its 75th anniversary. The first day's program included a "panel" discussion of the problem of "communications."

The term "communications" has two quite distinct aspects. One has to do with the physical instruments—which include not only those for conveying information, but also the tools of transportation. During the 75 years since the ASME was founded, there has been a revolutionary increase in communications instruments—automobiles and improved highways, planes, radio and television, telephones, improved printing and photographic techniques, and so on.

The press, and particularly the technical and professional press, has greatly increased its skill in what is known as "presentation"—making it easier for the reader to get information "off of the page."

The improvement in the instruments of communication has not, however, made the acquisition of useful information any easier for the man who wants to be informed—because, nowadays, the attacks on the citizen's senses of sight and hearing have reached overwhelming volume.

Better instruments of communication, thus, have not made people noticeably wiser or better informed than they were before all these marvelous inventions came along. Col. Willard Chevalier, who presided at the ASME's panel discussion, drew attention to the wide disparity in the degree of improvement between the *means* of communication and the *content* thereof.

Two or three courses of action could improve this situation. One would be for the people who have socially important messages to impart to develop greater skill in presenting what they have to say. Too many wise men, who really have a useful message to deliver, are contemptuous of the arts necessary to make their wares attractive and easy to assimilate.

What would we think of a man who would detect a dangerous fire—and give warning in a voice too low to be heard. Surely any message deserves effectiveness in its delivery which will match the importance of its content.

Another practice that would improve the quality of "communications" would be more tough-minded selectivity by the audiences addressed. The dishonest, the meretricious, the double-talkers—all could be quickly discouraged by "absent treatment" on the part of really discriminating audiences. As long as people enjoy the role of suckers, there will be those willing to accommodate them—and these are the people who are primarily responsible for the abuse of the communications process.

J.G.L.

TO STABILIZE SOFT ROADBED . . .

Ties Driven by Off-Track Rig

Frisco is using new tractor-mounted machine, adapted in its own shop, to drive timbers alongside track in unstable areas



POLE-DRIVER is adapted from a D-6 crawler tractor and Hystaway attachment. Standard crane boom has been replaced by pile-driver leads and a 2,500-lb drop hammer.

IT ALL STARTED IN 1938

The history of pole-driving for roadbed stabilization on the Frisco dates back to 1938 when a Dallas firm contracted with the line to drive some 5,000 ties with two on-track machines. In 1939, the road developed its first pile-driving machine for this purpose by mounting an A-frame on the front of a Harvey rail-laying machine and attaching a set of leaders and a hammer. It was counterweighted with old rails and operated on track. This machine worked comparatively well and was used extensively in roadbed stabilization.

Subsequently an on-track, self-propelled piece of equipment was built with a drop hammer capable of driving poles up to 16 ft long. This machine was used for driving old ties largely and was supplemented by regular pile-drivers handled by work trains.

The slowness of the former coupled with the cost of work trains for operating the latter made the cost of stabilization work quite high. Hence, in 1951 the Frisco's engineering department conceived the idea of using a Caterpillar D7 tractor with a Hystaway attachment and crane to drive poles alongside the track. Prior to this time, the road had been using D7s and Hystaways to drive piling in the construction of jetties in rivers.

For driving shoulder poles and ties the D7s with Hystaway-crane attachments worked with good results in soft cuts where water pockets existed, averaging 150 to 200 ties per day in soft beds no exceeding 4 ft in height. However, because of inadequate bracing of the leaders, the boom on this rig proved to be somewhat unstable in operation. Thus it was decided to construct the present machine, more sturdily built than its predecessor.

Culminating many years of experimenting with various types of equipment for driving poles in roadbed stabilization work is a new off-track outfit developed by the Frisco. In this machine the road has found an economical means of driving old ties and poles into soft roadbeds in marshy and river-bottom lands.

The new machine is basically a Caterpillar D-6 crawler tractor with a Hystaway attachment. It was modified in the Frisco's roadway equipment shop, where the Hystaway crane boom was removed and replaced with a pile-driver attachment and drop hammer. Two 18-ft leaders make up the attachment and 10-in I-beams and steel rods secure it to the Hystaway framework.

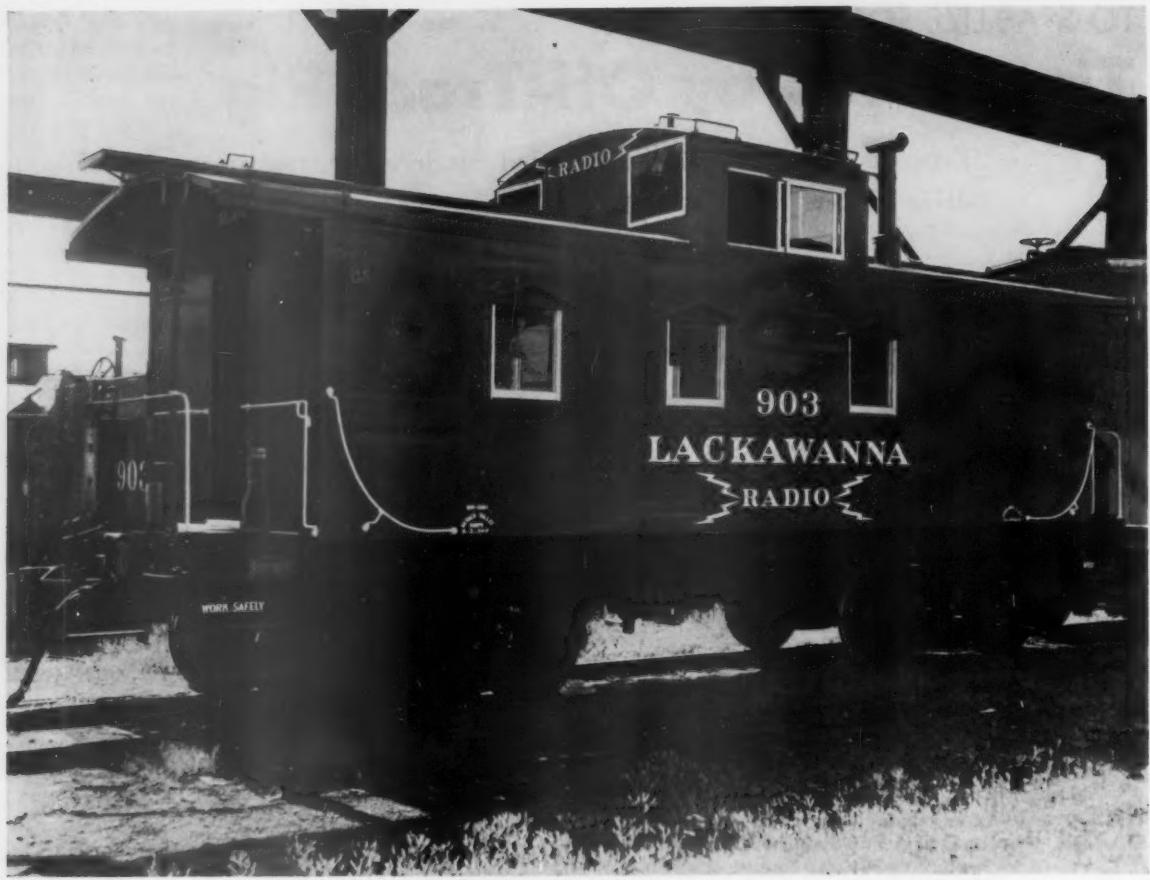
The hammer weighs 2,500 lb and is rigged with a 1/2-in. wire rope which is activated by the Hystaway. The crane boom carrying the leads can be swung horizontally 45 deg either way from center. A side-mounted seat with dual controls has been installed on the tractor. The seat faces the driver attachment, thus permitting the operator to observe his work at all times.

To offset the extra poundage added to the rear of the tractor, 3 1/2 tons of counterweights have been added to the bulldozer C-frame. As an added precaution against breaking the cable holding up the bulldozer C-frame and to relieve the weight on the front-mounted cable control, the C-frame has been secured to the tractor's radiator guard with a tie rod. Another tie rod extends from the radiator guard up to the top of the Hystaway mast.

A three-man crew works with the machine driving 8-ft ties and poles up to 12 ft in length. One man operates the unit, one digs centering holes along the track, and a third positions the ties in the holes under the hammer.

The machine is designed so it can be disassembled easily and shipped from one destination to another. Tubular struts are connected to the leaders with pins which are removed after the tractor has been driven onto a flat car. This allows the pile-driving attachment to rest horizontally on an adjoining flat car, so the overhead clearance requirement is just the height of the tractor.

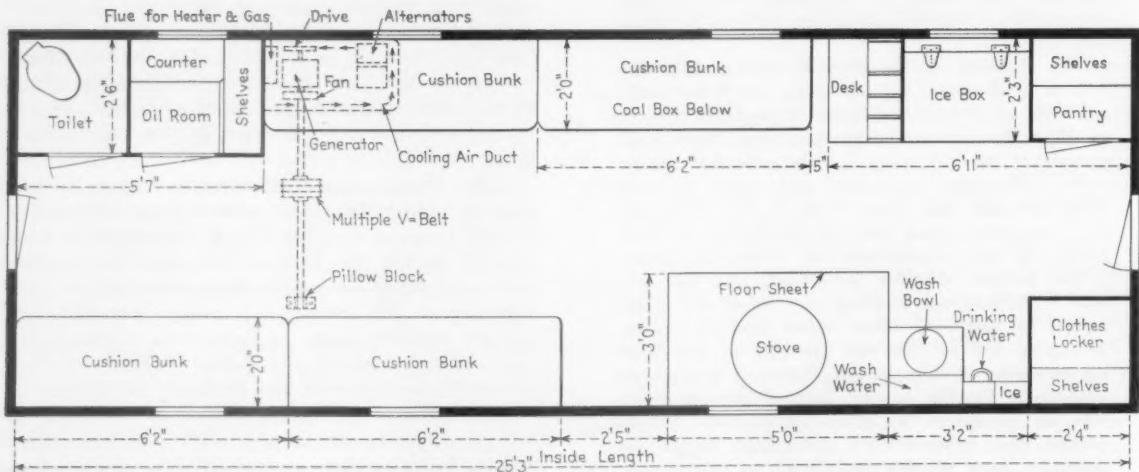
Although the tractor-pile-driver has been in operation for only a short time, officers report the machine is well balanced and has already turned in a record driving of 198 ties in one 6-hr day. The operator in charge stated he was confident the machine could drive up to 300 ties per day in soft material. Clutch trouble resulting from overheating—a common fault with earlier models of pile-driving machines—has been noticeably lacking with the Hystaway attachment, according to reports. Cost figures on the operation are not yet available, but the road feels that this machine will outdo all previous ones of this type in economy of operation.



CABOOSE NO. 903 is one of 27 equipped with electric lights and radio.

Lackawanna Cabooses Electrified

All-steel, welded construction used on railroad designed and built units, some equipped with radio and electric lights



FLOOR PLAN of the DL&W cabooses equipped with generators.

During the past 21 months the Lackawanna has been turning out, at its Keyser Valley, Pa., car shops, a group of 61 new all-steel cabooses. Thirty-two of these have been equipped with electric lights and 27 also have two-way radio. These new cabooses are an all-Lackawanna product as to design and production.

The car bodies are $\frac{1}{4}$ in. steel, all welded, which results in simplification of manufacture and a better appearing job when completed.

The first caboose, No. 850, was built and placed in service in 1948 to get the reaction of train crews that were to use them when the program got under way. The men were asked to comment on the car's riding qualities as well as its other features in order that the cabooses would be satisfactory and comfortable. As a result of this test, a number of alterations was made in the original plans that could not have been foreseen beforehand.

In this connection, shop employees and supervisors submitted suggestions to facilitate the production of the cars and provide additional safety features. These included the rounding of square corners, and repositioning of grab irons and other handrails. A coping over the windows was added to help keep out the rain.

Tender Underframes Used

In determining the type of caboose best suited for the Lackawanna's heavy grades and pusher service, it was decided to use as underframes the cast steel tender beds from retired steam power. This procedure not only provided the necessary additional strength, but was an important economic consideration.

The underframe was fitted with a standard draft gear pocket on the forward end by welding and the height was adjusted to the caboose by a heavier body center plate and extended side bearings. A steel plate was installed as a floor.

The car body itself is almost entirely welded in sub-assemblies, such as sides, ends, roof and cupola, and these parts are then assembled on the underframe as a single unit by welding. The sides, floor, ends and roof are insulated, thus preventing abnormally high temperatures in the summer and providing a consistent temperature in the winter with a minimum of coal. The insulation also reduces track and wheel noise.

Over the insulation fir plywood was applied to the walls, ends and ceiling to provide a smooth interior. Pine was used for flooring. All lockers and cupboards are of welded steel construction.

The cars are equipped with aluminum sash, glazed with safety glass set in rubber. The side cupola sash slides forward and backward for the convenience of employees watching the train.

The trucks are equipped with long elliptical springs and steel wheels for easier riding. The center plate is fitted with a fiber filler, $\frac{3}{8}$ in. thick, to keep truck noise out of the car.

Each car is equipped with a device called a "zipper", which closes a valve in front of the angle cock and allows the pusher locomotive to cut off without stopping the train. The air brakes also may be released from inside the caboose by stepping on a release valve which is located in the floor.

As the radio installation program for freight trains got



BELT DRIVE ARRANGEMENT to operate alternator-generator. Dotted line follows axle-driven belt up into the body of the caboose.

under way, 32 of the cabooses were scheduled to be equipped with electric power supply for the radios. Only 27 of the radios have been installed, but all of the 32 cabooses have been equipped with electric lights. Included are conductor's light over the conductor's desk, a dome light at each end of the body of the car, and four marker lights. The marker light fixtures have a part of the bottom cut away so that they serve to light the car steps. The lights inside have individual switches and there is also a switch in the cupola for turning out the ceiling lights to reduce glare at night.

Generator is Belt-Driven

The generator is driven from a car axle through a Dayton V-belt drive. One set of belts drives an intermediate shaft fitted with two pulleys and the generator is driven by a second set of belts. This arrangement provides a speed multiplier, and makes possible the use of a small high-speed generator, which is inside the caboose. The second set of belts operates through a hole in the caboose floor.

The generator is a Leece-Neville 12-volt, 100-amp a-c machine and is located in a box together with controls and rectifier to produce 100 amp of 12-volt d-c power. Also in the box is a 300 amp-hr storage battery. This generator enclosure serves as a seat inside the caboose, and has a removable cover to facilitate inspection and maintenance.

The Bendix radio sets used operate on 12 volts d-c, and the same sets are used on both locomotives and cabooses. Each set weighs 52 lb. and may be readily removed from the caboose or locomotive for maintenance. Current requirement of the radio is 9 amp on standby and 20 amp when transmitting. Maximum lighting load is about 10 amp. It has not been necessary to provide wayside charging facilities for the batteries.



THIS PROPOSED "CAL-SAG" PROJECT will cut into the heart of Chicago's greatest industrial area. It will also

serve the principal port for St. Lawrence Seaway business and, if traffic estimates are anywhere near correct. . . .

Rail Business Could Float Away

President Eisenhower's budget for 1955, submitted to Congress in mid-January, contains a \$4 million request for funds to begin work on still another ambitious new inland waterways project—the so-called Calumet-Sag Channel at Chicago.

Located in the south part of the city, "Cal-Sag" extends some 28 miles from the existing Illinois waterway to Gary, Ind. The overall project is ambitious. It calls for widening a sanitary district canal between Sag Junction and Blue Island (see map); development of the Little Calumet and Grand Calumet rivers between Blue Island and Gary, and construction of necessary locks and dams over the entire course. As a final step, the existing Illinois waterway channel would be widened to 225 ft between Sag Junction and Lockport, Ill., thereby clearing away all "bottlenecks" in a Great-Lakes-to-the-Gulf waterway system. It is not surprising that arguments for Cal-Sag have been heard in cities as far away as New Orleans, La.

Supporters of the channel project include, not unexpectedly, the Army's Corps of Engineers. They have backed the idea since before World War II. Today there are some 21 private groups, mostly in and around Chicago, who are also staunch supporters of "Destiny's Ditch." These groups are united as the "Inland Waterways Coordinating Committee," and are carrying on an active campaign to win public support.

The first bite of \$4 million to begin work on Cal-Sag would, of course, be only a starter since the engineers now estimate the total cost of the project at around \$182 million. (In 1945 they were estimating \$60 million). It is true, too, that almost all the cost of Cal-Sag would be paid by the federal government. For example, the Sag Junction-Blue Island segment, shown as Part I on the accompanying map, has a price tag of \$98 million. According to a spokesman for the Corps of Engineers,

local interests, including local government agencies, would supply "about \$12 million" of this amount. The remainder would have to come from Washington, D. C.

"An American Rotterdam"

Completion of the waterway channel, and throwing it open to private, contract and common carrier barge traffic, could substantially alter existing traffic patterns in this area. Ripples would spread in all directions. Estimates prepared by the engineers show that in the first year after completion, some 10 million tons of freight will move via Cal-Sag. Within 15 to 20 years they figure the annual traffic will reach 18 million tons. This would be a very sizable boost over the tonnage that now comes into the area over the "unimproved" channel. Actual 1953 tonnage—private, contract and common carrier combined—was 3,575,000 tons. A preliminary figure for 1954 shows 3,400,000 tons.

Apart from these aspects, the Cal-Sag channel would also provide barge operators with a front door into

CHANNEL DIMENSIONS

Location	Depth (Feet)		Width (Feet)	
	Present	Proposed	Present	Proposed
Chi. San. & Ship Canal Sag Jct. to Lockport	21	9	160	225
Cal-Sag Channel, Sag Jct. to Little Cal. River	21	9	50-60	225
Little Cal. & Cal. Rivers Cal-Sag Channel to Lake Calumet entrance	9	No Change	300	No Change
Grand Cal. River—Little Cal. River to Ind. Harbor Canal	3-4	9	100	225
Grand Cal. River—Ind. Harbor Canal to Clark Street	3-4	9	100	160

Lake Calumet, the spot Chicago expects to become its principal St. Lawrence Seaway port.

This Lake Calumet development, as distinct from Cal-Sag, is an undertaking of the Chicago Regional Port District Board, and railroads in the South Chicago-Northern Indiana area have not opposed it. The 2,100-acre lake only recently was turned over to the board by quit-claim deed from the city. The board will do its own financing of facilities, and it cleared a major hurdle in this respect late in 1954 when it won court sanction of its "legality" to issue revenue bonds. By issuing such bonds, the board will finance the installation of docks, elevators, warehouses and a sizable railway switching line. Early estimates have placed the cost of this port development work at around \$60 million.

Modern Accounting?

Cal-Sag, on the other hand, is something else—a project that will get a lion's share of its financial support from the federal government. Justifying such an expense can involve concepts that are pretty hard to nail down. A recent brochure published by the Waterways Coordinating Committee, for example, pointed up the following among the benefits to be derived from Cal-Sag: "[The project will] make possible substantial econo-

mies for shippers using the waterway.... Engineers estimate that transportation savings resulting from Cal-Sag improvement would be more than double the annual cost for the project's maintenance, interest and amortization." This raises the simple question, Who keeps the money?

Although Cal-Sag was approved by Congress in the Rivers and Harbors Act of 1946, no funds were appropriated. Later, the Korean War pushed the project aside but it cropped up again when the 1955 budget was under consideration. At that stage, some 20 railroads—those directly affected in the Chicago area—took steps to advise the Bureau of the Budget of their opposition. They made their own engineering study of Cal-Sag and put forth their answers in a report to the bureau. The plea was not fruitful, however, and the request for funds was contained in the final budget that went to Congress in January.

Despite this setback, the affected railroads have decided to continue their opposition. Their present plan is to oppose any appropriation for Cal-Sag "as a matter of principle." But the railroads are injecting this practical note: If Congress goes ahead with approval of the project anyway, such approval should require that user charges be imposed to place the entire project on a self-liquidating basis.

NH Sees Cut in Piggyback Costs

The New York, New Haven & Hartford, in a move which its management expects will cut substantially the costs of handling "piggyback" ("Trailer") traffic, has become the first railroad in the United States to put in service an adaptation of the system used in France (*Railway Age*, April 2, 1951, page 46, and June 7, 1954, page 45) and presently being promoted in this country by Piggy-Back, Inc., 20 Exchange place, New York 5.

Among the advantages anticipated from this system are these:

1. With the new speedy loading, unloading and tie down system, terminal handling costs will be reduced some 50%.

2. The new cars, two of which have been built, an important part of the system, are 75 ft long and 9 ft 6 in. wide, carry two trailers per car, and are estimated to cost about \$8,000 each. This is just about the cost of the 36-ft flat car which has been standard equipment in New Haven "Trailer" service for several years.

3. The loading procedure made possible by the new system is expected to reduce by more than 50% costs of constructing new terminals.

4. Because of the light weight of the new type car (40,000 lb) the expense of line haul movement of "Trailer" traffic will be reduced substantially.

Additional benefits anticipated by the railroad with this system are:

1. Higher trailers may be handled within clearance limitations.

2. The improved tie-down and shock absorbing de-

- Lightweight 75 ft car with "no floor"
- Fast loading and unloading
- Simple fast tie down
- Inexpensive terminals

vices as combined promise to increase the safety of "Trailer" operations and to eliminate almost completely any chance of damage to the lading of the trailers.

Why Loading Is Fast

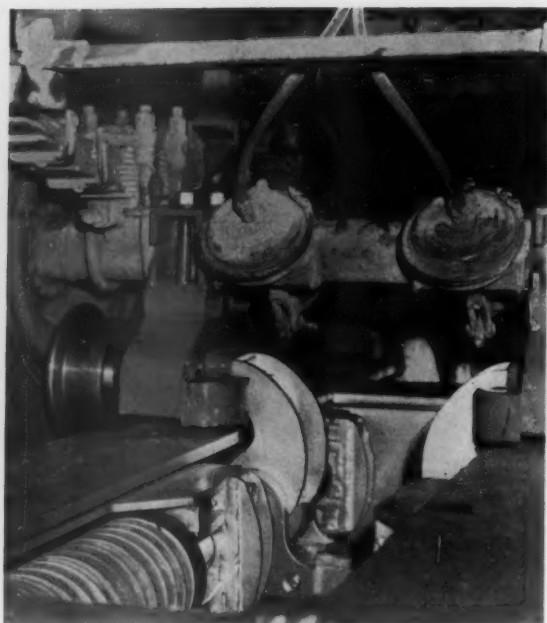
The fast loading and tie down features of this new system are easy to appreciate. When a tractor operator backs a trailer on a loading platform and approaches a string of cars the centering device automatically puts him on the "rails," which are the members of the center sill of the car. The driver then "highballs" to the place where he'll drop the trailer, without the need of anyone to guide him. Once the trailer has been positioned over the tie-down clamps, one man, working from the ground, tightens the clamps in a matter of seconds. As a matter of fact, since he works from the ground, one man could handle two strings of cars with little difficulty.

The light weight of the cars, and to some extent their relatively low first cost, results from the elimination of floors, side sills, and other parts.

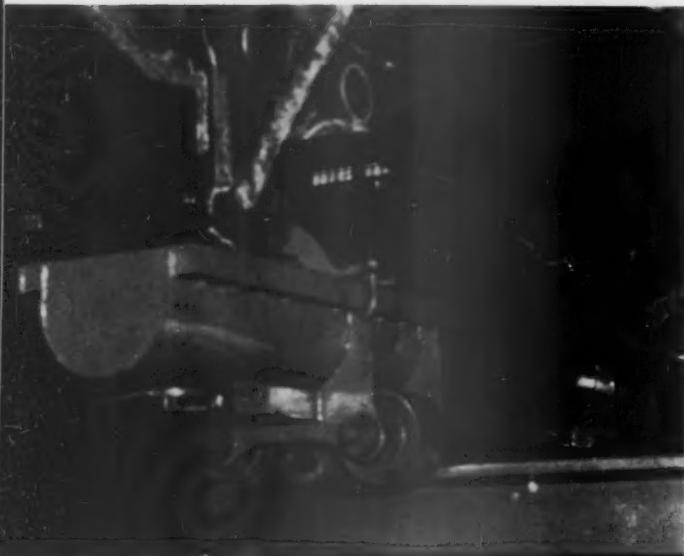
Tie-down devices and built-in spring type buffers will increase the safety of operation and cut the possibility



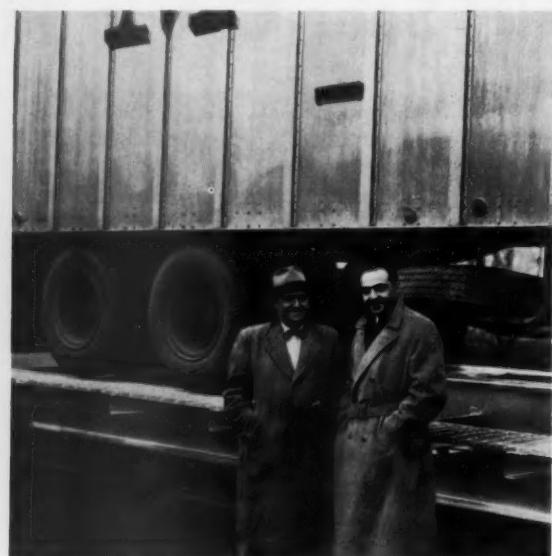
TWO OF THE NEW Trailiner cars, designed by Piggy-Back, Inc. The new car is fundamentally a "center sill" on wheels. Running boards at the sides were added as possible safety measure. Trailer wheels are suspended, with weight of vehicles. . . .



TRANSFERRED to the center sill by means of two-wheeled dolly assemblies which are readily attached to the trailer axles. Recess in dolly assembly receives tie down clamps. In left foreground is a rubber "buffer." Buffer and tie down clamps are novel features of this system.



TEMPORARY DEVICE to adapt landing gear of trailers to new loading system. Hardly visible under "rough" is lever which controls device (between wheels) which clamps landing gear to center sill. This acts as "snubbing" under longitudinal shock.

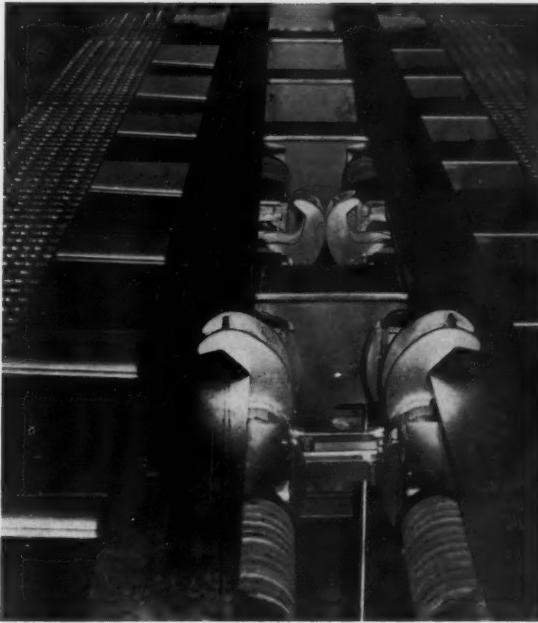


HERE wheels of trailer are clearly suspended in air. Cars were built at Readville, Mass., shops of the New Haven by railroad forces under the direct supervision of J. A. Croke, shop superintendent (left). D. Clejan, president, Piggy-Back, Inc., and designer of the equipment is at right.

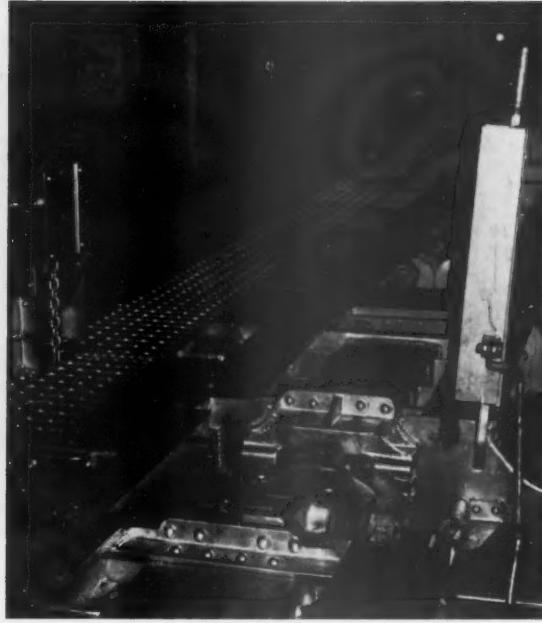
of loss and damage to lading. With the buffers cushioning the movement of trailers, forces reaching the lading when longitudinal shocks of collisions at over 10 mph are sustained are said to be less than 1G. Under older tie-down methods forces so severe would be likely to break the tie-down equipment.

Officers of the New Haven and Piggy-Back, Inc., state

that this new system permits adapting any present team track facility to use as a trailer-on-flat car terminal. Fewer loading ramps are needed because the speed of loading and unloading permits longer strings of cars to be handled on one track. Also, parking space required for trailers probably will be reduced. With loading and unloading speeded up to an average of 1½ to 2 min



UNDER longitudinal shocks buffer permits trailer to travel eight inches in either direction, and return to normal position. Set of clamps in foreground is in locked position. Two sets are needed for tandem axle trailers. A set of clamps is operated as a unit by one man with a crank.



"RAILS," one in operating position here while other (at the right) is raised, serve to bridge the gap between adjacent cars. Rails are raised and lowered by cutting lever-type mechanism which is self-locking when rail is in raised position.



D. S. SUNDEL, manager of Trailiners and Mr. Clejan discuss the new equipment.

per trailer, it becomes less necessary to get certain trailers into specific positions in the train.

One of the outstanding advantages of the new system, brought about by the new type car, is that the railroad should be able to pick up some traffic it now can't handle. Because of its clearances, the New Haven with its present equipment could not handle trailers more than 12 ft 2



THE SPECIAL TRACTOR shown here was designed especially for terminal handling of trailers.

in. high. With standard 33-in. car wheels the new equipment permits acceptance of trailers 12 ft 6 in. high. If 30-in. wheels were used on the cars, 12 ft 9 in. trailers could be loaded and transported safely.

D. Clejan, president of Piggy-Back, Inc., states that his company will sell its equipment to the railroads or will execute lease-rental agreements with carriers.

Organizations

(Continued from page 16)

The annual dinner of the **Federation for Railway Progress** will be held at the Waldorf-Astoria Hotel, New York, March 24.

The 38th annual meeting and dinner of the **Pacific Railway Club** will be held in the Sheraton-Palace Hotel, San Francisco, at 6:30 p.m., March 10, with Robert R. Gros, manager advertising and publicity, Pacific Gas & Electric Co., as Speaker.

S. N. Mills, assistant director, Bureau of Safety and Service, Interstate Commerce Commission, will discuss the safety appliance law at a meeting of the **Eastern Car Foreman's Association** in the Engineering Societies building, New York, March 11. A buffet-supper at the Old Timers Grill at 6:30 p.m., will precede the meeting.

The following have been elected officers for 1955 of the **General Eastern Passenger Agents Association of New York**: President, W. F. Vitt, general eastern passenger agent, Missouri Pacific; vice-president, T. J. Glancy, general agent, passenger department, Rock Island; treasurer, J. H. Dimke, assistant general passenger agent, Erie; secretary, C. C. Burns, general agent, passenger department, Milwaukee; and assistant secretary, A. C. Burdt, eastern passenger agent, Illinois Central.

The 1955 convention of the **National Defense Transportation Association** will be held in Boston, October 12-15.

Robert N. Hoskins, industrial forester of the Seaboard Air Line, has been named chairman of the **Railway Tie Association's** timber conservation committee.

The 31st annual meeting of the **Communications Section** of the **Association of American Railroads** will be held in San Francisco, May 17-19. Business sessions and dinner will be at the Hotel St. Francis and the display of exhibits at the Hotel Sir Francis Drake. Newly elected officers of the section, for two-year terms ending December 31, 1956, are: Chairman, R. A. Hendrie, general superintendent communications, Missouri Pacific; and vice-chairman, J. A. Parkinson, general superintendent communications, Santa Fe.

The **Philadelphia Passenger Association** has elected the following officers: President, Wilfred W. Greene, city passenger agent, Chicago & North Western; vice-presidents, E. H. Hatfield, Santa Fe, and E. Paul Schilling, Milwaukee; secretary, J. W. Wilkins, Pullman Company; treasurer, F. M. Lauer, Pennsylvania.

MOPAC BANKRUPTCY NEAR ITS END?

A major step toward ending the 21-year bankruptcy of the Missouri Pacific system came in St. Louis February 25, when Federal Judge George H. Moore approved the "agreed system plan" of reorganization (*Railway Age*, December 27, 1954, page 15, and August 9, page 14). The plan has already been approved by the ICC.

Judge Moore directed the commission to proceed at once with the security holders voting on the plan. Most of the major interests have already agreed upon it, and Guy A. Thompson, trustee, now feels there is a good chance of the road being back in private hands before the end of the year.

At the court hearings, which ended last December, there were eight objections filed against the plan. These were "overruled and denied" by Judge Moore when he approved the plan "in all respects." The plan is "almost certain" to get "overwhelming support" from the voters, according to Russell L. Dearmont, attorney for Mr. Thompson.

The next step will be appointment of five reorganization managers who will arrange the reorganized corporation and prepare for the issuing of new securities and drafting mortgages. Judge Moore will have to approve the nominees, who will be named by groups of security holders and other interested parties, divided into five classifications. Mr. Thompson has in-

dicated that these groups have already been asked to pick their nominees.

The plan gives control of the MP to holders of preferred stock of the old company. Holders of old company common will receive one share of new Class B common for each 20 shares of their old stock. The Alleghany Corporation, which holds about half the old common, and which has objected to previous plans, approves the present plan.

The MP, the International-Great Northern, and the New Orleans, Texas & Mexico, and their subsidiaries, will be reorganized into a single company. The legality of such a merger was challenged by some of the objectors to the plan, who pointed to the recent Supreme Court decision in the Florida East Coast reorganization (*Railway Age*, April 12, page 7). That decision said the ICC lacked the power to force a railroad to merge [in that instance with the Atlantic Coast Line] as part of its reorganization. Judge Moore, however, sustained the proponents of the MP system merger, who contended that the FEC decision was not applicable. The ACL, they pointed out, was not a part of the reorganization proceedings in the FEC case, but the MP, the IGN, and the NOT&M are all part of the MP bankruptcy proceedings. Said Judge Moore in his decision: "The commission had the power under section 77 of the Bankruptcy Act to approve and submit said plan."

Supply Trade

S. L. Brownlee has been appointed manager of the Railroad Division (formerly Superheater Company Division) of **Combustion Engineering, Inc.**; not manager of sales, as erroneously reported in *Railway Age*, February 21 page 56.

Richard C. Waldron, senior engineer of the **Okonite Company**, has been named manager of engineering.

William F. Botensten has been appointed district manager, railroad sales, **Pyle-National Company**, at Philadelphia, succeeding **M. M. Connell**, deceased.

Edgewater Steel Company has appointed **George C. Gentry** director of engineering and development; **Ross M. Heyl**, general superintendent; and **Paul J. Nicholas**, operating superintendent.

Richard H. Koehler has been appointed director of advertising and publicity for **Westinghouse Air Brake Company**, at Pittsburgh, effective April 1. He is now advertising and sales promotion manager at the

company's Le Roi Division in Milwaukee.

J. J. Wortham has been named Texas branch manager of **Colson Corporation**, in charge of the sales office (Continued on page 52)



GEORGE W. GOBRECHT, who has been appointed assistant to president and general sales manager of Mink-Dayton, Inc. He was previously chief project engineer of the Railway division of Budd Company.

Pennsylvania Railroad Uses Pittsburgh Alkali- and Acid-Resistant **CARHIDE**

to provide better and longer-lasting
protection on fleet of new
covered hopper cars.



Part of the large fleet of new covered hopper cars recently painted with alkali- and acid-resistant CARHIDE in the Butler, Pa., shops of the Pullman-Standard Car Manufacturing Company.

Add the Pennsylvania to the long list of railroads using Pittsburgh's alkali- and acid-resistant CARHIDE to prolong the appearance and serviceability of covered hopper cars.

This type of CARHIDE provides extra years of protection against the effects of cargoes which quickly destroy ordinary finishes. Many hundreds of cars on which it has been used have shown that such ladings as soda ash, sulphur, phosphates, strong acids, alkalis, cement, lime,

common salt, crude oil and alcohol will not affect it. Some of these cars have been in service for as long as five years without need for repainting.

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Supply Trade

(Continued from page 48)

in Dallas and of new branch offices in Houston, Tyler and Weslaco. **R. C. Browne**, formerly assigned to the sales office in Cincinnati, has been transferred to Louisville, and **Roy Watson** has been appointed to the Toledo branch sales office.

International Harvester Company has named **Donovan Stevens** to be in charge of industrial power sales to national users, including railroads, succeeding **Walter H. Tudor**, transferred.

C. H. Morse, Jr., manager of the locomotive service department of **Fairbanks, Morse & Co.**, has been appointed western regional manager, Railroad division.

Woolery Machine Company, Minneapolis, has named the **Mississippi Supply Company**, 80 East Jackson boulevard, Chicago, as its exclusive sales agent for the Chicago area.

Robert L. Moxley has been elected president of **Southern Electric, Inc.**, Hammond, Ind., succeeding **Osborn Andreas**, who has been made board chairman. Mr. Moxley was formerly vice-president of sales.

Charles K. Scott, who recently retired as engineer maintenance of way of the Erie's Eastern district at Jersey City, N.J., has become associated with **L. B. Foster Company**, at New York.

Ralph J. Hinkle, vice-president of **Garlock Packing Company**, has retired.

Ex-Cello-O Corporation has acquired the **Michigan Tool Company**,

which operates three plants in Michigan, and a subsidiary, **Colonial Tool Company**, Windsor, Can. Michigan Tool will continue to operate as a separate unit under its present management.

OBITUARY

Frederick S. Stallknecht, 62, former manager of sales development for the Primary Battery division of Thomas A. Edison, Inc., died at the University of Pennsylvania Hospital, Philadelphia, February 12.

New Facilities

NH to Spend \$64 Million in Five Years

The biggest single improvement program ever to be undertaken by the New Haven, which will represent an investment of \$64,000,000 during the next five years, was announced last week by Patrick B. McGinnis, president.

The initial phase will begin as quickly as orders can be placed and contracts signed. It will result in the New Haven spending \$4,049,000 for this part of the program.

Automation—Studies to cost \$150,000 have been approved, which will determine the exact steps to bring automation to the New Haven. Included will be reverse signaling, locomotive cab signals, radio communication and a centralized traffic control system, all between New York and Boston.

Eighty-three miles of new rail, representing 20,000 tons of steel, will be purchased in 1955. It will be 140-lb rail, welded into lengths of 1,500 ft when installed. The rail and fastenings alone will cost \$3,569,000, which is said to be more than has been spent for this purpose by the New Haven during the preceding five years.

Heavy repairs will be made to 517 gondola cars, which, when in good shape again, will be sold to the International Railway Car Company of Buffalo, and then leased back for the New Haven's use for \$44 a month. After five years the lease can be renewed for another five years at \$1.80 per month, upon completion of which the cars are expected to be no longer useful. The rental income these cars will bring in to the NH while they are being used on other lines is expected to exceed the rent the NH must pay to International.

Expenditures also authorized include \$70,000 as the New Haven's part of an industrial, parking and railroad improvement at Norwalk, Conn.; \$97,000 for signaling work at Framingham, Mass.; \$125,000 for an automatic passenger-car-washing machine at Springfield; and \$38,000 for new industrial trackage in Boston.

A proposed 10-point program for complete revamping of railroad and parking facilities at New London, Conn., was agreed upon February 24 at a meeting between Mr. McGinnis and representatives of the city.

The agreement, which is subject to approval by New Haven directors on April 27, provides for removal of the present passenger station and erection of a new facility of modern, lightweight construction. An overhead ramp will be built for two-way vehicular and pedestrian traffic over State street in the interest of safety, and in anticipation of operation of new, low-center-of-gravity trains through New London expected to begin the latter part of this year.

In addition, the NH has agreed to assume the entire cost of providing parking space in the location bounded by Water, John and Potter streets; this space will become available when present railroad and Railway Express facilities are relocated. Mr. McGinnis also expressed the railroad's willingness to become a joint partner with the city in development of the Fishers Island property, where a bulkhead can be filled and additional parking space provided. A charge would be made for parking in these areas, as there is now in the city off-street parking lot.

The agreement pointed out that the proposed program was "understood by all" as not being the "perfect plan," but that "in all these efforts to improve the situation, some compromise must be made." Mr. McGinnis and other persons attending the meeting said they recognized the subject had been studied for years and "we believe this is the best solution."

Alaska.—Bids for construction of a two-berth dock at Seward will be called for this spring. The dock will consist of approximately 48 earth-filled sheet pile retaining cells with a depth of about 59 feet and a face of 29 ft. About 400,000 cu yd of earth and rock will be needed for the dock and supporting warehouses and tracks. The two warehouses will be approximately 100 by 400 ft, on concrete foundations with structural steel frames and insulated sheet metal sidings.

Replacement of 70-lb rail with 115-lb rail between Seward and Portage (64 miles) has been substantially completed. The balance of this rehabilitation project, to be carried out during the summer, will consist of placing 63,000 new ties; respacing 300,000 track ft of ties; and raising, lining and dressing 335,000 track ft of main line. Mannix International, Inc., is the contractor.

Arkansas & Louisiana Missouri.—Currently under way is a program of laying about 250 net tons of new 90-lb rail annually. The rail is being laid on new crushed rock ballast at a total annual cost of between \$25,000 and \$30,000.

Atchison, Topeka & Santa Fe.—The Texas & Pacific has filed with the



BRUCE W. CARKIN, who has been appointed sales engineer of railroad and original equipment installations for Air-Maze Corporation. He was formerly associated with Electro-Motive Division of General Motors Corporation in design and development of locomotives.



REPORT FROM A RAILROAD CAR SHOP:

REMINGTON STUD DRIVER

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Fastening jobs are a matter of minutes at a large eastern car shop. As the shop foreman puts it: "Since the Remington Stud Driver became a standard maintenance tool, steel-to-steel fastening can be done 5 times faster than former methods." Over 5,000 studs have been set in 4 months with this handy, lightweight (6-pound) tool at great savings in time and labor.

Chief advantage of the Stud Driver is its source of power—a 32 caliber cartridge. It drives a stud into the hardest steel or concrete . . . makes the tool independent of outside power sources. No job is "out of the way" for the *self-powered* Stud Driver! You can anchor switch boxes, conduit, steel plates wherever they are—at speeds up to 5 studs per minute!

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ICC a petition to intervene in protest against proposed construction by two Santa Fe subsidiaries of a 19.7-mile spur between Maryneal, Tex., and Silver. The Kansas City, Mexico & Orient would build the spur and the Panhandle & Santa Fe would operate it (*Railway Age*, January 10, page 189). The T&P opposes construction of the spur on the grounds the Panhandle is trying to invade territory already adequately served by the T&P.

Atlantic Coast Line.—This company is considering construction of three new buildings, all incorporating passenger facilities and offices for district supervisory personnel, at Rocky Mount, N.C., Charleston, S.C., and Savannah, Ga. The building at Rocky Mount would be adjacent to present passenger-train servicing facilities at South Rocky Mount, about one mile south of the existing passenger station, and would eliminate the necessity for two stops at that point—one for passengers and one for service and crew changes. The proposed new stations at Charleston and Savannah would be adjacent to the company's main line and would eliminate the "delay and expense" of loop operation into and out of present stations at both points.

Belt (Chicago).—Company forces are carrying out changes to the track layout and interlocking at the east end of Clearing yard. Electric snow melters also are being installed in this \$374,000 project scheduled for completion in September. Company forces are renovating heating and ventilating equipment in the clearing diesel shop at a cost of \$42,500. This work will be

completed in April. Two grade separation projects, also under way, are scheduled for completion in December. A Congress Street expressway separation involves temporary and permanent bridges by contract awarded by Cook county, and track work by company forces. A State Highway 50 separation involves temporary and permanent bridges by the state of Illinois and track work by railroad forces.

Chicago & Western Indiana.—The former Monon freighthouse at Polk street (Chicago) is being remodeled for occupancy by the Railway Express Agency, by the Ellington Miller Company, at a cost of \$260,000. The project involves building of new steel and concrete platforms. Electric standby service, being installed by the Super Electric Construction Company (\$107,000) will be completed in April. Two escalators are being constructed to connect the mezzanine waiting room with the first floor of Dearborn station. The work is scheduled for completion in May at a total cost of \$109,000. Contractors are Otis Elevator Company and Ellington Miller Company.

Louisiana Southern.—The ICC has authorized this road to extend its line 1.7 miles from Braithwaite, La., to the Freeport Sulphur Company cobalt ore processing plant to be constructed there. Cost of the construction is estimated at \$109,250, which is to be financed with funds from the road's treasury and with advances from its parent company, the New Orleans & Northeaster.

Northern Pacific.—A 1½-mile line change near Clark's Fork, Idaho, will

cost \$1.3 million. A major part of the project will be the construction, over Clark Fork river, of a bridge consisting of 10 100-ft and two 75-ft deck-plate girder spans on concrete piers supported by steel bearing piles. A contract for the bridge substructure has been awarded to Sather & Sons, Yardley, Wash. Contracts for grading and superstructure will be awarded later.

Seaboard Air Line.—The bridge over the Oconee river at Athens, Ga., will be partially reconstructed at an approximate cost of \$300,000. Work, scheduled for completion before the end of the year, will consist mainly of substitution of new reinforced concrete piers for present steel towers supporting ends of the bridge, and installation of longer and stronger girder spans carrying track. Contract has been awarded to Wannamaker & Ames, Inc., Orangeburg, S.C. SAL project engineer is Ralph Lott.

Soo Line.—A general contract covering the construction of a new shop building at North Fond du Lac, Wis., has been awarded to the Immel Construction Company of Fond du Lac. The contract also provides for remodeling of the roundhouse at North Fond du Lac to adapt it to diesel operation.

Spokane, Portland & Seattle.—Due to construction of the Dalles dam in the Columbia river, some 14 miles of line will be relocated in the vicinity of Northdalles, Wash., by the federal government. A \$2.4 million contract has been awarded for this work to the Morrison-Knudsen Company calling for completion in 600 working days.

Contracts have not yet been let on a bridge filling job involving some 87,000 cu yd of fill material, 550 linear feet of corrugated metal pile and 9 acres of clearing. The work has been estimated to cost around \$69,000 and should be completed about September 1.



COMPLETING what is said to be the first all diesel-electric national rail system in the world is this Uruguay-bound General Electric locomotive—the last of 64 shipped to Uruguay since 1950. In the first year of opera-

tion, the new units showed a 5-to-1 fuel advantage over the oil-burning steam locomotives they replaced. The locomotives represent an investment of over \$10 million; 61 of them were built by GE, three by Alco.

Financial

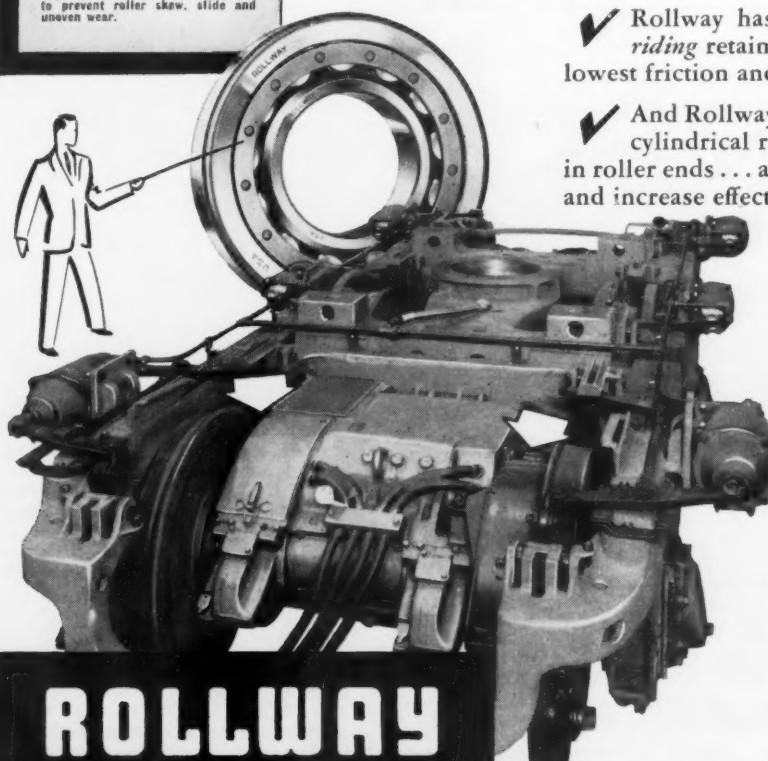
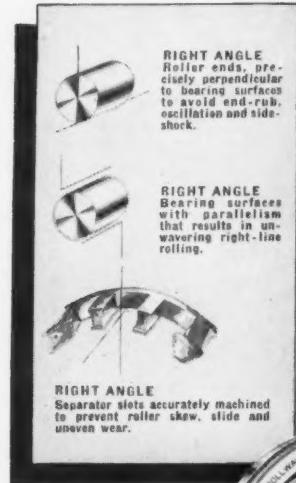
NH to Study Exchange Of Debentures for Stock

Directors of the New York, New Haven & Hartford last week authorized the road's management to begin negotiations looking toward issuance of non-convertible income bonds, to be exchanged for the company's outstanding \$5 cumulative preferred stock, its 4½% convertible income bonds, and stocks of leased lines, which, together, total approximately \$108 million.

Five new members were elected to the board at the same meeting: George T. Carmichael, Harry L. Filer, Roy W. Freeburne, Frederick R. Murgatroyd and Jeremiah J. O'Neill. They succeed Morgan B. Brainerd, Charles E. Dunlap, William M. Hickey, Richard

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ENGINEERING OFFICES:

Syracuse Boston Philadelphia
Pittsburgh Cleveland Detroit Chicago
Milwaukee Houston Los Angeles San Francisco Seattle Toronto

E. Pritchard and J. Francis Smith, all resigned. Mr. Carmichael is senior vice-president of the railroad; Mr. Filer is its general counsel; Mr. O'Neill is comptroller, and Messrs. Freeburne and Murgatroyd are substantial stockholders.

The board also approved an amendment in the corporation's by-laws, to alter geographic restrictions placed upon directors; and authorized a stock purchase plan for officers and employees, reserving for this purpose 200,000 shares of unissued common stock. Participants in the plan would require approval by the board of directors. Employees would be granted participation on the basis of one share for each \$100 annual income. The purchase price under the plan would be the highest price at which the stock sold in the open market as of the date of the agreement. The board specifically approved stock purchase agreements for Patrick B. McGinnis, president, William K. Tate, vice-president-freight, and Harvey E. Hales, chief mechanical officer, in amounts of 25,000, 10,000 and 2,000 shares, respectively. These shares are included in the 200,000 reserved under the stock purchase plan. The effective date of each of these plans is March 1, 1955.

To facilitate the stock purchase agreements, the directors voted to submit to stockholders for their approval at the annual meeting on April 13, a resolution providing that all the 1,073,836 shares of \$100-par common stock of the company be changed into a like number of common shares with no par value.

Baltimore & Ohio. — *Sells Bus Line.*—The B&O has sold its interest in the West Virginia Transportation Company to Carl A. Boe, president, Ridge Lines, of McKeesport, Pa. West Virginia Transportation provides bus service covering Grafton, W. Va., Clarksburg, Parkersburg, Morgantown, Fairmont, Weston, Charleston and Wheeling, and Baltimore, Md., Fort Meade, Jessup and Laurel.

Chicago & Eastern Illinois. — *Acquisition of StL&O'F.*—The ICC has authorized the C&EI to acquire and operate, through a 10-year lease, the properties of the abandoned St. Louis & O'Fallon, which it has been operating under a service order since October 18, 1954 (*Railway Age*, November 1, 1954, page 65). Under terms of the lease, the C&EI will pay \$285,001 in quarterly installments, with option to buy the O'Fallon for \$1 at the termination of the lease.

Maine Central. — *Acquisition of St. Johnsbury & Lake Champlain.*—The Maine Central has applied to the ICC for authority to purchase for \$450,000 cash the St. Johnsbury & Lake Champlain, now owned by the Boston & Maine. The MC now operates the property under a sublease from the Canadian Pacific. In an accompanying application, the MC asked for authority to issue and sell \$1,700,000

of first mortgage and collateral bonds to be used in part to redeem \$1,408,000 of outstanding first mortgage (closed) divisional lien 5% bonds. The balance of the proceeds, together with cash from the MC treasury, would be used to finance the purchase of the St. Johnsbury. The MC asked the commission to exempt it from competitive bidding requirements, stating that better arrangements could be obtained through private negotiations. It asked the commission to authorize sale of the bonds at not more than 5%, noting it expected the rate to be less.

New York Central. — *Enters Agreement for New York Real Estate Development.*—The NYC has accepted a proposal of Webb & Knapp, Inc., New York real estate management firm, under which the latter will administer as agent all negotiations for development, sale or lease of the railroad company's properties in the Grand Central Terminal area. Roger Stevens, who has participated in a number of large-scale real estate transactions in New York City, will be associated with Webb & Knapp in its handling of the railroad property.

Securities

Illinois Central. — *Repurchase of Debentures.*—Because nearly all its preferred stock has been converted to common, on a share-for-share basis, the IC has been able to repurchase \$12,530,000 out of an issue of \$18,000,000 of 3½% 25-year debenture bonds which it sold in December 1954. The debentures had been intended to provide funds for redemption, at \$58 per share, of 372,914 still-outstanding shares of 6% non-cumulative convertible preferred originally issued in 1922 to furnish capital for the road's Chicago suburban electrification and construction of Markham yard. Between the time the redemption plan was announced and the expiration date of the conversion privilege, however, the market price of IC common rose to 65, with the result that about 98½% of the preferred shares were converted to common. The debentures were originally sold to Halsey, Stuart & Co. and 20 associates at 99.14, and reoffered to the public at 100. With the 3½% interest rate, their cost to the company was approximately 3.55%.

Dividends Declared

BANGOR & AROOSTOOK.—5% preferred, \$1.25, quarterly, payable April 1 to holders of record March 7.

BOSTON & ALBANY.—\$2, quarterly payable March 31 to holders of record February 28.

DAYTON & MICHIGAN.—common, 87½%, semiannual; 8% preferred, \$1, quarterly; both payable April 1 to holders of record March 15.

DELaware & HUDSON.—\$1, quarterly, payable March 28 to holders of record March 11.

DELAWARE, LACKAWANNA & WESTERN.

\$1, payable April 1 to holders of record March 11.

KANSAS CITY SOUTHERN.—common, 75¢, quarterly, payable March 15 to holders of record February 28; 4% preferred, 50¢, quarterly, payable April 15 to holders of record March 31.

MINNEAPOLIS, ST. PAUL & SAULT STE. MARIE.—common, 50¢, payable March 31 to holders of record March 14.

NEW YORK, NEW HAVEN & HARTFORD.—preferred, \$1.25, cumulative, payable March 30 to holders of record March 14.

NORTHERN PACIFIC.—75¢, quarterly, payable April 26 to holders of record April 5.

PITTSBURGH, FORT WAYNE & CHICAGO.—common, \$1.75, quarterly, payable April 1 to holders of record March 10; 7% preferred, \$1.75, quarterly, payable April 5 to holders of record March 10.

READING.—4% 2nd preferred, 50¢, quarterly, payable April 14 to holders of record March 24.

UNION PACIFIC.—common, \$1.25, quarterly; 4% preferred, \$1, semiannual; both payable April 1 to holders of record March 7.

Security Price Averages

	Mar.	Prev.	Last
	1 Week	Year	
Average price of 20 representative railway stocks	91.22	90.25	61.71
Average price of 20 representative railway bonds	98.08	98.50	94.38

Application

ATLANTIC COAST LINE.—To issue \$13,474,000 of 25-year general mortgage bonds, series D, to be exchanged for a like amount of 3½% bonds, series X, authorized January 10 and held in its treasury (*Railway Age*, January 24, page 43). Dated March 1, 1955, the new securities would be sold at competitive bidding, the interest rate to be determined by such bidding.

Railway Officers

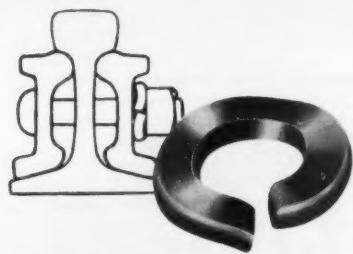
ATLANTIC COAST LINE.—**Charles Cook Howell**, vice-president and general counsel at Wilmington, N.C., retired from that post January 31 to resume private practice of law in Jacksonville, Fla.

D. B. Lacy, master mechanic at Jacksonville, Fla., has been appointed assistant superintendent motive power, Southern division, at Waycross, Ga. **G. R. Gibbs**, diesel foreman at Jacksonville, Fla., succeeds Mr. Lacy as master mechanic at that point.

E. B. Rush, general superintendent at Jacksonville, Fla., has been appointed assistant to general manager there. **J. W. Plant**, superintendent transportation at Atlanta, Ga., has been appointed general superintendent of the Western division, with the same headquarters, succeeding **J. J. Stockard**, who has been transferred to the Southern division at Jacksonville, to replace Mr. Rush.

CANADIAN NATIONAL.—**William P. Moffat**, transportation engineer, has been appointed chief of research at Montreal, succeeding **Philip L. Mathewson**, who has been named assistant chief of motive power and car equipment for the system. **James A. McDonald** has been appointed assistant to vice-president of research and development at Montreal.

G. R. Johnston, chief of transport



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Our immensely powerful spring washers protect railends and joints; they equalize bolt tensions; they absorb shocks and stresses — — they reduce maintenance costs.

THE NATIONAL LOCK WASHER COMPANY, NEWARK 5, N. J., U. S. A.
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research, has been appointed traffic research officer at Montreal.

James C. Crochetiere, chief clerk to division freight agent at Montreal, has been appointed division freight agent at Quebec City, succeeding the late **J. E. G. Lebrecque**.

K. W. Thomson, mechanical engineer at Montreal, has been appointed general foreman of the Stratford motive power shops, succeeding **R. R. Risk**, who has been named superintendent at North Bay, Ont.

V. A. E. Everitt, assistant superintendent at North Bay, has been transferred to the Laurentian division at Three Rivers, Que., succeeding **A. W. Harris**, promoted.

D. W. Blair, district engineer of the Southern Ontario district, has been appointed engineer maintenance of way, Central region, with headquarters as before at Toronto, succeeding **H. J. Fast**, who has been promoted to assistant to chief engineer at Montreal. **W. B. Jackson**, division engineer at London, Ont., succeeds Mr. Blair as district engineer at Toronto.

Mr. Blair, a native of Quebec City, joined the research and development department of the CNR at Lévis, Que., in 1948. Later that year he was ap-



TEXAS & PACIFIC.—As *Railway Age* reported February 14, page 49, **A. C. LaCroix** has been appointed superintendent, Western division, at Big Spring, Tex.



H. J. Fast



D. W. Blair

pointed engineer for the Laurentian division, becoming division engineer of Montreal Terminals in 1950 and district engineer at Toronto in 1953.

MAINE CENTRAL-PORTLAND TERMINAL.—**Scott W. Scully**, attorney at Portland, Me., has been appointed general attorney.

E. D. Westcott, general agent at Bangor, Me., has been appointed assistant superintendent car service at Portland, Me. **J. N. Horton**, general agent at Rumford, Me., has been transferred to Bangor to succeed Mr. Westcott. **L. W. Judkins**, freight conductor, succeeds Mr. Horton as general agent at Rumford.

NEW HAVEN.—**Charles R. Cherington**, professor of government at Harvard University and an expert in the field of government regulation of business, has been appointed transportation consultant to the president of the New Haven.

NEW YORK CENTRAL.—**W. T. Alexander, Jr.**, has been appointed to the new position of assistant chief engineer—system at New York. Mr. Alexander was formerly superintendent of the Eastern division of the Texas & Pacific at Fort Worth, Tex.

Ralph R. Smith, assistant chief engineer maintenance of way at New York, has been appointed engineer maintenance of way-system at that point. The title of chief engineer maintenance of way, formerly held by **J. P. Hiltz, Jr.**, resigned, has been abolished.

W. G. Cowie has been appointed division engineer, special assignment, at New York. The position of division engineer, River division, at Weehawken, N.J., formerly held by Mr. Cowie, has been abolished. Work coming under jurisdiction of the maintenance of way department, on the River division, between Weehawken, N.J., and M.P. 51.8 south of Newburgh, N.Y., including piers, float bridges and ferry stations on both sides of the Hudson river, and piers on the East river, will be assigned to **C. C. Lathey**, division engineer, Electric division, at New York. **G. Auer**, division engineer, Eastern division, at Poughkeepsie, will be assigned to the area between M.P. 51.8 and Selkirk, N.Y.

NICKEL PLATE.—**Edward D. Walsh**, trainmaster on the Wheeling & Lake Erie district at Brewster, Ohio, has been transferred to the Cleveland division of the Nickel Plate district at Conneaut, Ohio. **James K. Ramsey, Jr.**, general yardmaster at Indianapolis, has been appointed a trainmaster on the W&LE district.

Harold Wilding, freight traffic manager at Indianapolis, has been transferred to Chicago, succeeding **Ralph R. Deahl**, whose promotion to assistant to president at Cleveland was reported in *Railway Age* February 21. **H. E. Draper**, assistant general freight agent at Chicago, has been appointed general freight agent at Indianapolis and will assume duties heretofore performed by Mr. Wilding. **A. J. Haas** has been named assistant general freight agent at Chicago, succeeding **H. B. Lewis**, promoted.

ELGIN, JOLIET & EASTERN.—**W. F. Robinson** has been appointed assistant to comptroller at Chicago, succeeding **A. G. Bailey**, who has been appointed auditor standard costs, in charge of development of standard cost applications, at Chicago. **E. E. Lawler** has been named assistant auditor of disbursements at Chicago.

GRAND TRUNK WESTERN.—**Forbes B. Henderson**, assistant general attorney at Detroit, has been appointed general attorney there, succeeding **Frederick V. Slocum**, who has retired after 32 years of service. **James P. Tryand**, attorney, has been named assistant general attorney.

GREAT NORTHERN.—**Albert R. McKeen** has been named safety supervisor, Lines West, at Spokane, Wash., succeeding **J. T. Andrew**, whose appointment as general safety supervisor at St. Paul was reported in *Railway Age*, February 28, page 38.

ILLINOIS TERMINAL.—**Arthur L. Mohrman** has been appointed general agent at Decatur, Ill. The Decatur traffic office has been moved from 621 Standard Office building to 1800 East Garfield avenue (P.O. Box 1106).

KANSAS CITY TERMINAL.—**A. R. Shaw**, formerly secretary, auditor, manager and purchasing agent of the Denver Union Terminal, has been elected president of the Kansas City Terminal, at Kansas City, Mo., succeeding **B. J. Duffy**, retired.

LOUISVILLE & NASHVILLE.—**Robert L. Moye** has been appointed district passenger agent at Evansville, Ind., succeeding **Denzil C. McGehee**, who has retired after 49 years of service.

MACON, DUBLIN & SAVANNAH.—**M. T. Sanders** has been appointed general agent at Birmingham, Ala., succeeding **Claud E. Shannon**, who retires March 15 after 29 years of service.

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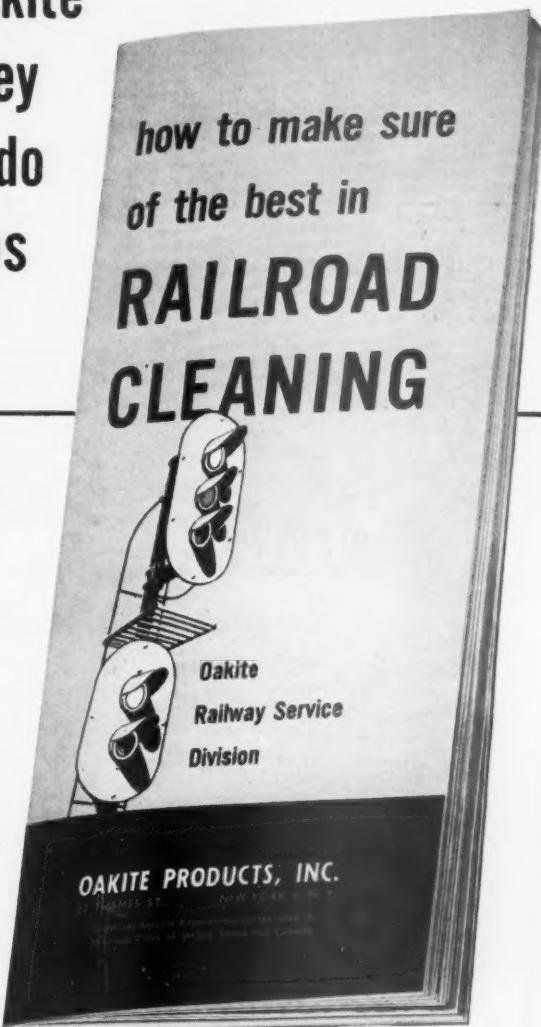
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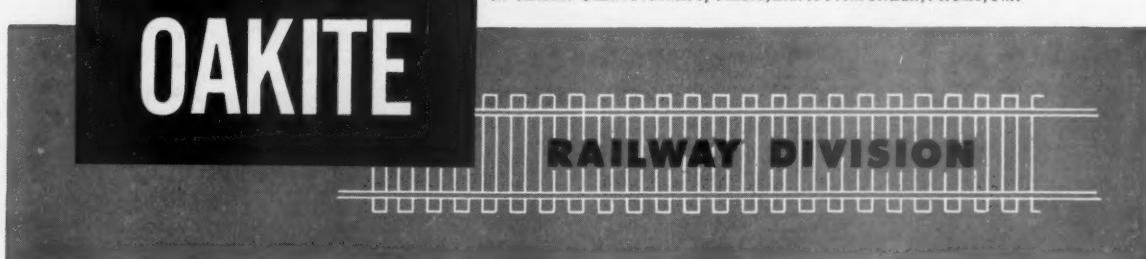
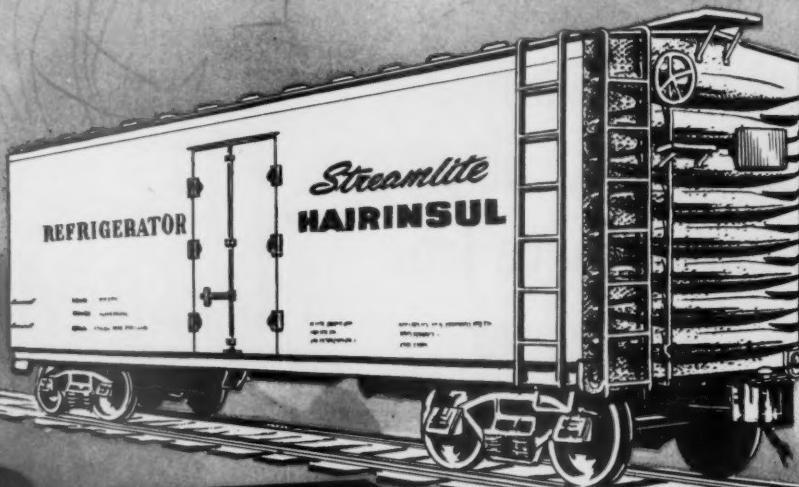


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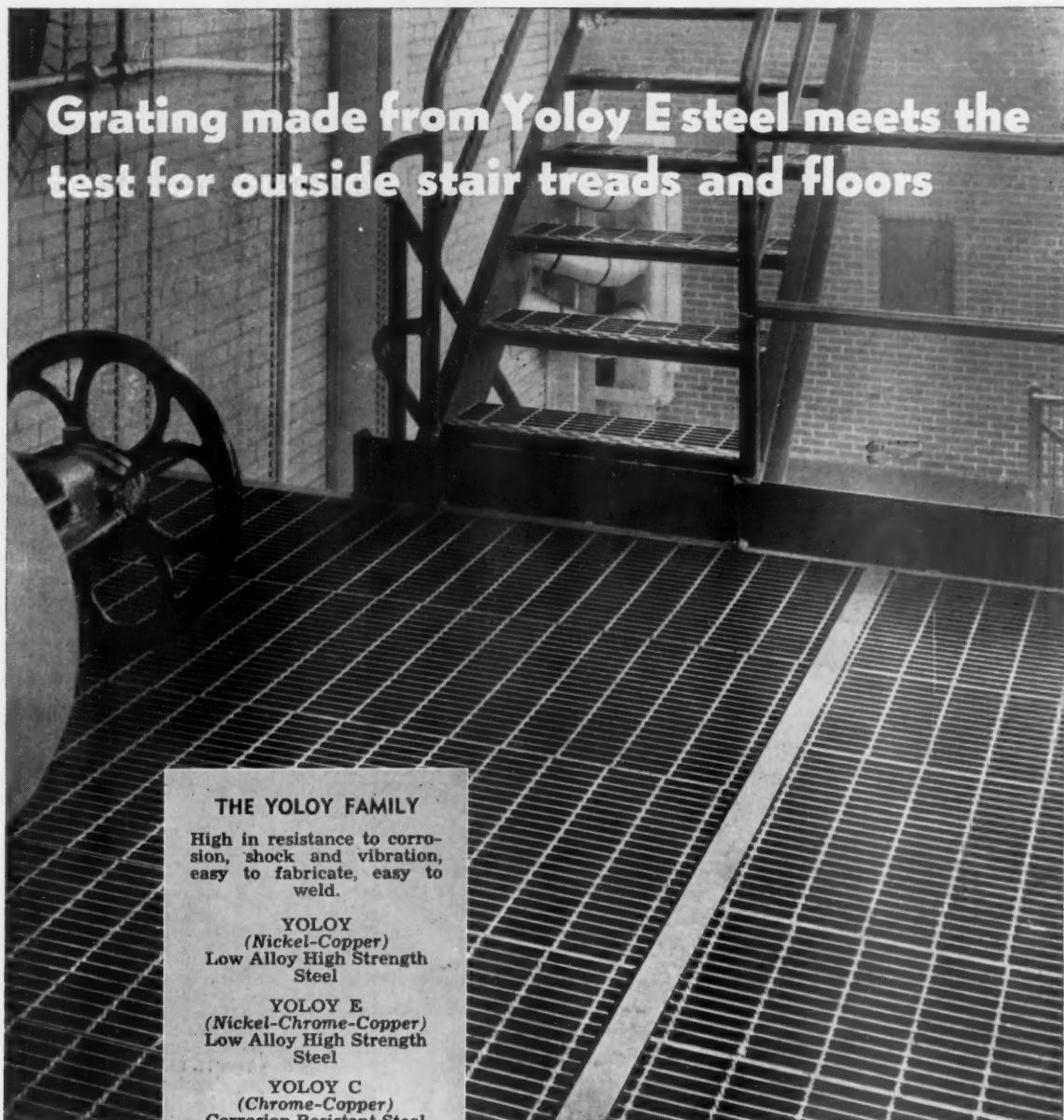


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How a locomotive-drawn plow
was used to lay the first
underground cable

Back in 1882, engineers of the Boston and Providence Railroad in Massachusetts decided to experiment by laying a 21-conductor cable in the ground. Connecting a plow to an outrigger on a flat car, they coupled up a locomotive and plowed a five mile trench between Attleboro and West Mansfield. Inside a $\frac{3}{4}$ " lead pipe they ran their gutta percha insulated cable . . . and it worked.

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Current Publications

BOOKS

CALLING ALL JOBS; AN INTRODUCTION TO THE AUTOMATIC MACHINE AGE. 24 pages. National Association of Manufacturers, 2 E. 48th St., New York 17. Free.

A word that means many things to many people, "automation" is used to refer to any automatic operation of productive machinery. Its wide-spread use, together with talk of "workerless factories," has caused many industrial employees to fear that mechanical robots will supplant them and leave them jobless. This booklet is designed to end such fears. It emphasizes that so-called workerless plants are a myth and will remain so in the future. It stresses the fact that industrial machinery has undergone a continuous process of improvement, and that this merely has become more pronounced in the past six or seven decades. It uses historical examples to show that every improvement of the machine age which has increased productivity has increased the total number of jobs, thus proving that automation is the friend of the worker rather than his enemy, and an atomic age development to benefit all mankind. The booklet explains that "jobs increase faster than population" and that they "multiply faster than machines." It tells, in layman's language, how some of the automatic gadgets, such as electronic brains and digital computers, are making the United States the most productive nation the world has ever known. It shows that all this means there will be less emphasis on brawn—more emphasis on brains.

BRITISH RAILWAY HISTORY; An Outline from the Accession of William IV to the Nationalization of Railways, 1830-1876, by Hamilton Ellis. 443 pages, illustrations. George Allen and Unwin Ltd., London. Available in U.S. from Macmillan Company, 60 Fifth avenue, New York 11. \$6.75.

Numerous histories of particular railway companies have been written down the years, but it is believed that this is the first time the general history of British railway transport has been presented in broad outline and, as far as possible without compiling an encyclopedia, in considerable detail. The railway world of the mid-century, in the midst of industrial expansion, was curiously feudal. A railway magnate could act very like a robber baron, and frequently did. Some went in for power politics on the grand scale, menacing their rivals and terrorizing smaller companies. But there were respectable companies, also, whose transactions were more in accord with the higher morality of liberal capitalism, which drove hard bargains but honored agreements. By 1876 the robber barons were declining and the severely respectable were very much in the ascendant. Mr. Ellis deals sympathetically with his

real characters whether they were admirable or not and he traces the broad development of railway techniques from their crude beginnings to the great improvements of the middle years.

ADVANCED MODEL RAILROADING, by Louis H. Hertz. 340 pages, illustrations, drawings. Simmons-Boardman Publishing Corporation, 30 Church street, New York 7. \$4.95.

One of the great attractions of the ever-growing hobby of model railroading is its truly dynamic quality, resulting in continually new and exciting developments. This book contains many new and stimulating ideas, improvements and simplifications on existing themes, and new methods and materials, of interest to every fan, regardless of whether he is a beginner or an old hand at the game. It provides practical information on control and signal methods, including full information on the latest developments in electronic and electric-eye devices; building and rebuilding models at home; full details on making parts and castings in the hobbyist's own workshop, and even an HO gage live steam locomotive. While a definite entity in itself, the book is a sequel to the author's "Complete Book of Model Railroading" and "New Roads to Adventure in Model Railroading."

TRAFFIC MANAGEMENT: Principles and Practices, by Charles A. Taff. 570 pages. Richard D. Irwin, Inc., Homewood, Ill. \$8.

The freight aspects of traffic management comprise the major portion of the book, with the responsibilities of the traffic manager in regard to passenger transportation treated in the final chapter. A summary of the background of the entire field of transportation and of the part it plays in economic life provides the opening chapter. Company organization and the relation of the make-up of the traffic department itself to the type of company organization are then described. Numerous direct responsibilities of the traffic manager are detailed in the following chapters, as well as indirect responsibilities which may become direct as traffic management is accorded greater recognition and expands in related areas. Subjects such as government bills of lading, movement of household goods and site selection are either treated for the first time in a traffic management text or treated in greater detail than has been done before.

BROCHURES

JNR 1954, in two parts. Japanese National Railways, JNR Building Marunouchi, Tokyo, Japan.

A collection of striking photographs showing operations on Japanese Government Railways.

JOINT STUDY OF ARTERIAL FACILITIES IN THE NEW YORK-NEW JERSEY METROPOLITAN AREA. 62 pages, illustrations, maps. Tri-Borough Bridge and Tunnel Authority and the

Port of New York Authority, 111 Eighth Avenue, New York 11. Free.

Reviews the bridge, expressway and other facilities which the two Authorities recommend as essential to the continued growth and prosperity of the New York-New Jersey metropolitan area.

PAMPHLETS

APPRaisal OF RAILROAD AND OTHER PUBLIC UTILITY PROPERTY FOR AD VALOREM TAX PURPOSES. 109 pages. Federation of Tax Administrators, 1313 East 60th St., Chicago 37.

This report of the Committee on Unit Valuation of the National Association of Tax Administrators is concerned with unit appraisals by the central assessment agencies of the several states for ad valorem tax purposes. Some important types of railroad properties are centrally assessed for ad valorem taxation in 42 states, and telegraph, telephone, electric, and sleeping car companies are almost as commonly taxed on state-assessed values. Air, highway, and water carriers, on the other hand, are centrally assessed in scarcely more than a dozen states. Because railroads are so often centrally assessed, and



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for the further reason that they probably present more different problems than any other type of public utility, this report speaks of railroads more often than of any other utility group and uses them to illustrate many of the problems common to all groups.

SELECTED ECONOMIC INDICATORS. 74 pages. Federal Reserve Bank of New York, Public Information Division, New York 45. Free.

These articles, reprinted from the Bank's Monthly Review of Credit and Business Conditions, describe the nature and significance of 20 statistical series that reflect economic conditions in the United States.

GUIDE FOR ASSESSMENT-SALES RATIO STUDIES. 69 pages. Federation of Tax Administrators, 1313 East 60th st., Chicago 37.

This manual on use of sales data to determine the relationship of property assessments and market value was prepared as a report of the Committee on Sales Ratio Data of the National Association of Tax Administrators. Railroads generally are interested in the problem of equalizing the property tax burden among the several classes of property, and have on occasion made their own sales ratio studies.

THE TRUTH ABOUT PARCEL POST. 17 pages. Railway Express Agency, 219 East 42nd st., New York 17. Free.

Presents the facts of "how it [parcel post] has been abused for the private profit of a few—at enormous loss to the American public."

FILM

NOTHING BUT THE BEST. 20 min, sound, color. Air Reduction Sales Company, 60 East 42nd st., New York 17. Free on loan.

The story of Airco's tungsten inert-gas arcwelding process. Typical applications of Heliwelding — production scenes shot in customers' plants—show manual, semi-automatic and completely mechanized equipment in use. The Heliweld process was specifically developed for rapid joining of light gages of so-called "hard-to-weld" metals and alloys. How Heliwelding produces welds that increase product sales appeal is the main theme of the film. Colorful animation explains in concise detail just how the process works.

ANNUALS

EVERYMAN'S ALMANAC, 1955. 32 pages. Michigan Railroads Association, 314 NYC Terminal, Detroit 16. Free.

AMERICAN TRUCKING TRENDS, 1954. 29 pages, charts. American Trucking Associations, Inc., Washington 6, D.C. Free.

Letters from Readers

It's 1955, Not 1887

WASHINGTON, D.C.

To the Editor:

I see (in Traffic World of January 29, page 16) that a spokesman for the common carrier truckers insists that railroad regulation was not instituted back in 1887 because the nation's railroads had a monopoly, but "because of the practices in which they had engaged."

This gentleman apparently believes that the railroads of 1955 ought to be regulated because of practices which railroad men were engaging in in 1887. The situation of the railroads is entirely different in 1955 from what it was in 1887.

The men who attempted to solve their prior-to-1887 rate problems in ways which we in 1955 may not approve of in their entirety are all dead and buried. Almost every piece of every railway in use in 1887 has long since ceased to be used. Even the corporate names have been changed in many instances.

We are not interested in perpetuating the answer which our ancestors may have thought the proper one to solve their 1887 transportation problems. We are interested only in finding the proper solution to our 1955 problems.

W. R. M.

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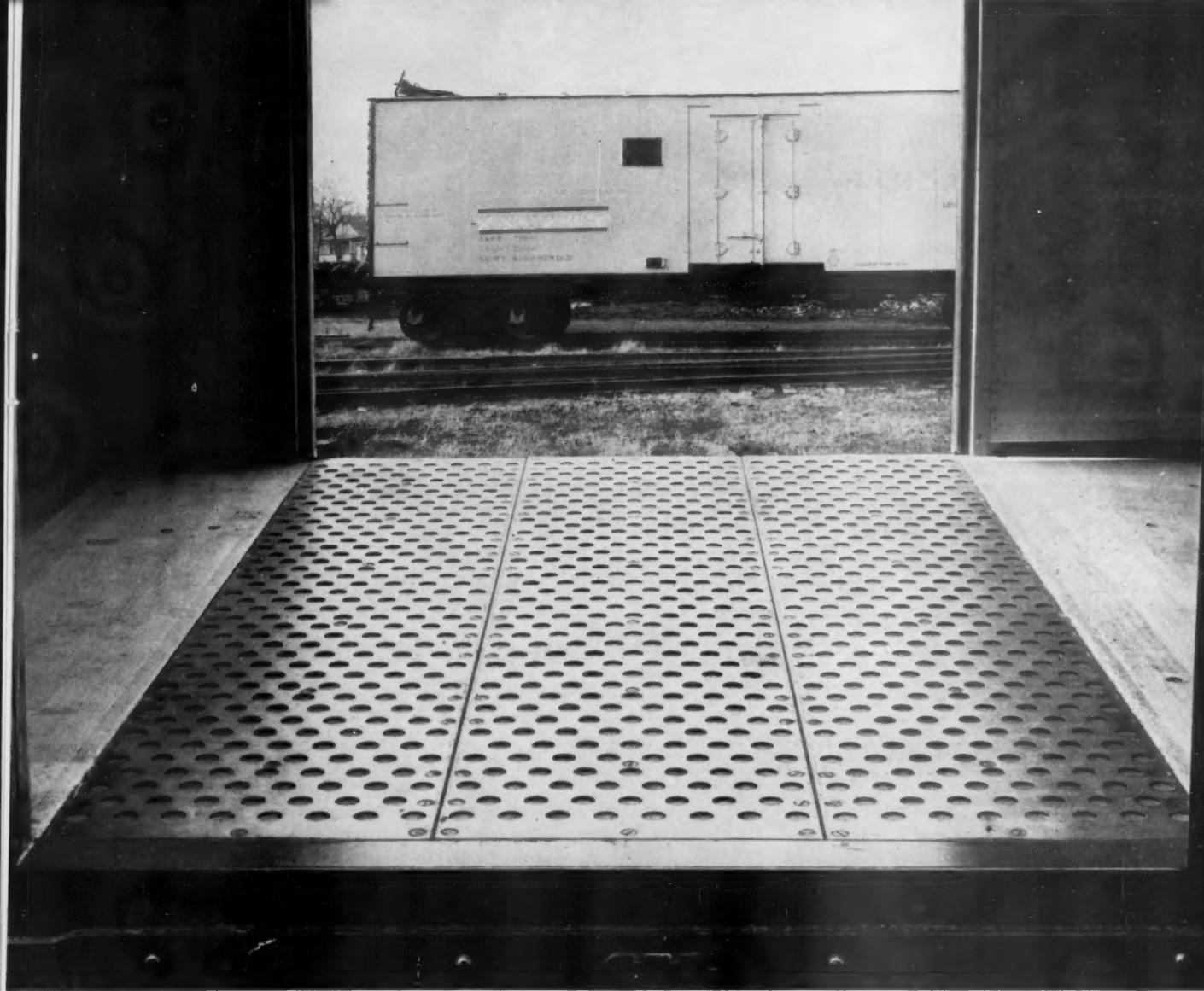
To the Editor:

I recall an incident of almost a generation ago—when the traffic vice-president of an important railroad said he had to have a 15-hour schedule between two important cities, if he was going to hold any l.c.l. business. The operating vice-president said such a schedule was "impossible"—that 18 hours was the best possible schedule. The argument went on for three years, and a new chief executive took over. He called the two vice-presidents into his office and, as a result, a train with a 14-hour schedule went into service.

Very few things are impossible, if they are necessary to attract and hold remunerative business. Any one department, naturally, wants to keep down its costs in relation to the total job it does.

But whenever any one department pursues its own departmental objectives, the result may be contrary to the interest of the property as a whole. It is the function of the chief executive to see that lesser objectives are at all times subordinated to the primary one.

W. R. MCLEAN



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One of the 160 Uses of CONCRETE on Railroads

NO. 24 OF A SERIES

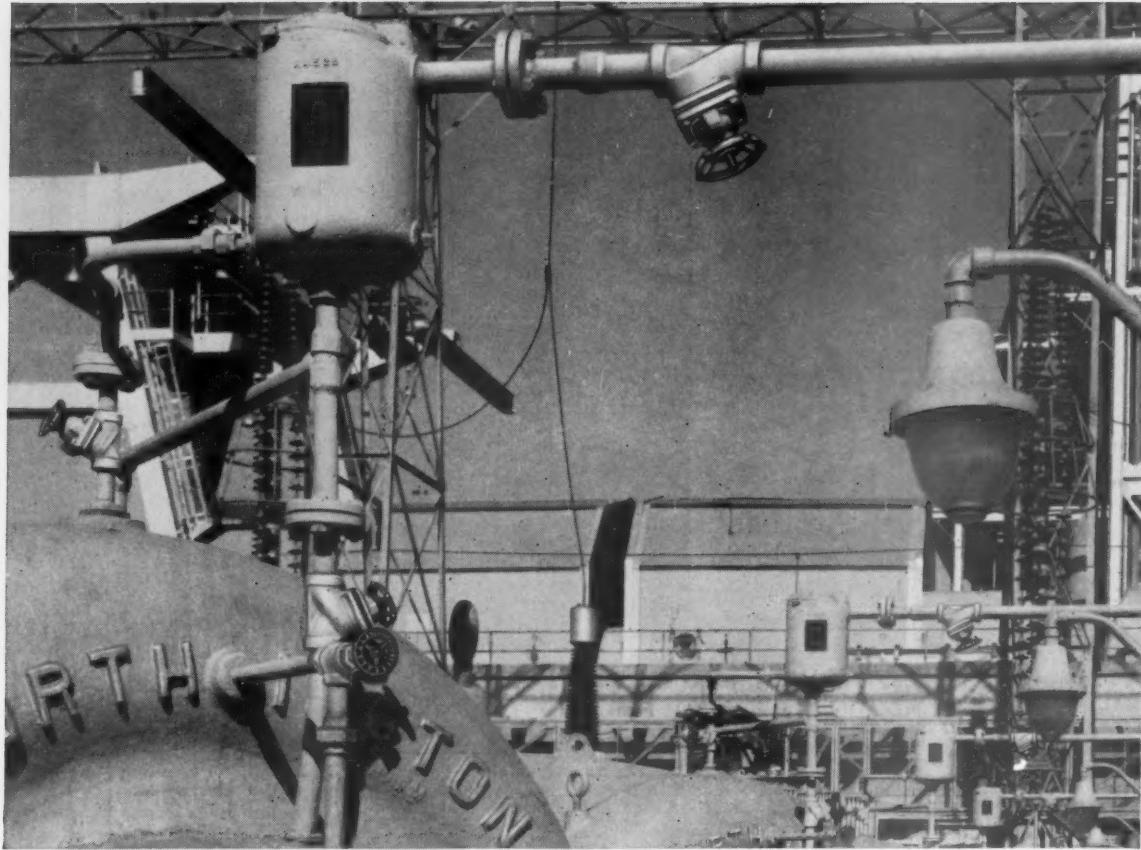
Photos show construction views of the Pennsylvania Railroad's ore unloading pier at South Philadelphia. The 76- x 850-ft. pier required 100,000 lin. ft. of precast concrete piles (above) and 8700 cu. yd. of concrete for the pier deck (below).

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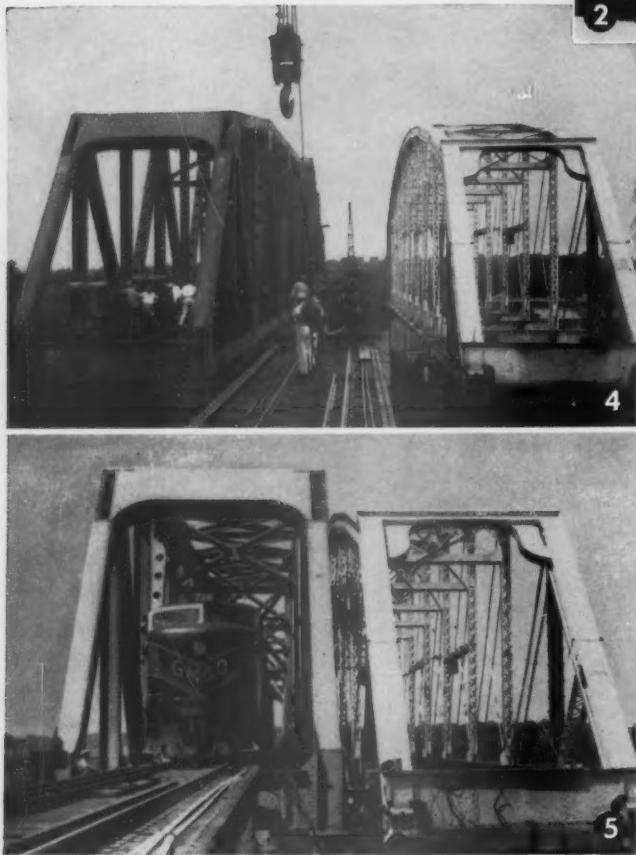
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THE replacement of the Gulf, Mobile and Ohio Railroad Company's bridge over the Warrior River at Tuscaloosa, Alabama, with a new structure on the existing piers is another good example of how American Bridge handles a difficult job.

The project involved the design, fabrication and erection of the 450-foot bridge (consisting of a 275' anchor span, a 58'4" cantilever arm, and a 116'8" suspension span) on the original piers, and the removal of the old, out-moded bridge.

The entire new bridge (picture #1) was erected on two barges (picture #2) and floated into a temporary position on pier extensions alongside the old structure (picture #3). The old bridge was then moved off its piers (picture #4) and the new bridge rolled onto the existing piers with new rails, crossties and new timbers in place (picture #5).

The changeover was accomplished with a traffic interruption of only thirty-one hours!

Handling unusual jobs like this with such ease and speed has made American Bridge the country's number one builder of railroad bridges. Whether your requirements are for a new line structure, or for an emergency repair or replacement job, American Bridge welcomes your inquiries.

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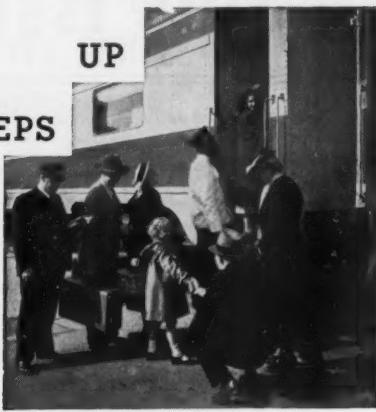
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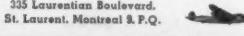
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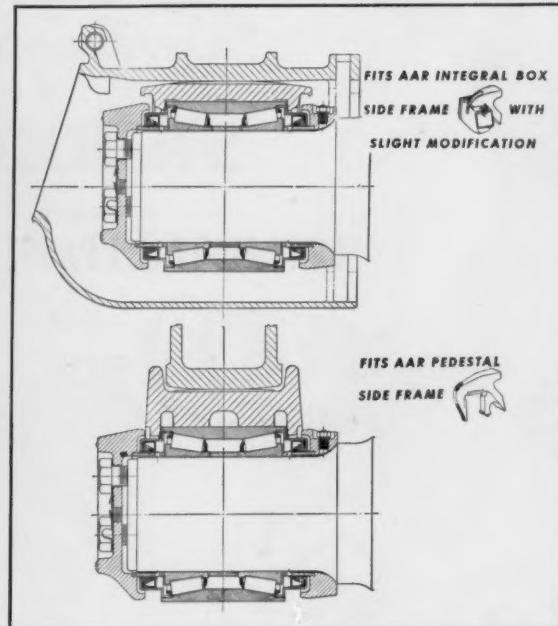
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